

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AIR QUALITY OPERATING PERMIT

Permit No. 079TVP01
Application No. A00079

Issue Date: October 13, 2003
Expiration Date: November 30, 2008

The Department of Environmental Conservation, under the authority of AS 46.14 and 18 AAC 50, issues an operating permit to the Permittee, **Alyeska Pipeline Service Company**, for the operation of the **Pump Station 9 (PS-9)**.

This permit satisfies the obligation of the owner and operator to obtain an operating permit as set out in AS 46.14.130(b).

As set out in AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this operating permit.

All facility-specific terms and conditions of Air Quality Control Permit-to-Operate 9572-AA005, Air Quality Control Construction Permit No 9872-AC028, and paragraphs relating to PS 9 in the Compliance Order by Consent No. 90-2-4-6-262-1 have been incorporated into this Operating Permit.

This Operating Permit becomes effective December 1, 2003.

John F. Kuterbach, Manager
Air Permits Program

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List of Abbreviations Used in this Permit

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
AS.....	Alaska Statutes
ASTM.....	American Society for Testing and Materials
BACT.....	Best Available Control Technology
C.F.R.	Code of Federal Regulations
CO	Carbon Monoxide
dscf.....	Dry standard cubic foot
EEMSP	Excess Emissions and Monitoring Systems Performance
EPA	US Environmental Protection Agency
gr./dscf.....	grain per dry standard cubic foot (1 pound = 7000 grains)
GPH.....	gallons per hour
HAPs or HACs.....	Hazardous Air Pollutants or Hazardous Air Contaminants [<i>HAPs</i> or <i>HACs</i> as defined in AS 46.14.990(14)]
ID	Source Identification Number
kPa.....	kiloPascals
MACT	Maximum Achievable Control Technology
MR&R.....	Monitoring, Recordkeeping, and Reporting
NESHAPs.....	Federal National Emission Standards for Hazardous Air Pollutants [<i>NESHAPS</i> as defined in 40 C.F.R. 61]
NO _x	Nitrogen Oxides
NSPS	Federal New Source Performance Standards [<i>NSPS</i> as defined in 40 C.F.R. 60]
ppm.....	Parts per million
PS	Performance specification
PS-9.....	Pump Station 9
PSD	Prevention of Significant Deterioration
RM	Reference Method
SIC.	Standard Industrial Classification
SO ₂	Sulfur dioxide
TAPS	Trans Alaska Pipeline System
TPH.....	Tons per hour
tpy.....	Tons per year
VOC	volatile organic compound [<i>VOC</i> as defined in 18 AAC 50.990(103)]
wt%	weight percent

Section 1. Identification

Names and Addresses

Permittee: Alyeska Pipeline Service Company
900 E. Benson Blvd.
Anchorage, AK 99508

Facility Name: Trans Alaska Pipeline System's Pump Station 9 (PS-9)

Physical Address: Section 27, T11S, R10E
Fairbanks, Meridian, Alaska

Owners of the Trans
Alaska Pipeline System
as of permit issue date: BP Pipelines (Alaska) Inc.
ExxonMobil Pipeline Company
Phillips Alaska Transportation, Inc.
Unocal Pipeline Company
Williams Alaska Pipeline Company, LLC

Operator: Alyeska Pipeline Service Company

Permittee's Responsible Official
Jim F. Johnson. Or, successor
Pipeline Manager

Designated Agent: CT Corporation System
Supervisor of Process/SP
801 West Tenth Street, Suite 300
Juneau, AK 99801
(907) 586-3340

Facility Contact: PS 9 Operations and Maintenance Supervisor
(907) 450-4902

Billing Contact: Environment Billing Administrator
P. O. Box 60469, MS 814
Fairbanks, AK 99706

Facility Process Description:

SIC Code of the Facility: 4612 – Crude Oil Pipelines

[18 AAC 50.350(b)(1), 1/18/97]

Section 2. General Emission Information

[18 AAC 50.350(b)(1), 1/18/97]

Emissions of Regulated Air Contaminants, as provided in the Permittee's application:

Nitrogen Oxides (NO_x), Carbon Monoxide (CO), Sulfur Dioxide (SO₂), Inhalable Particulates (PM₁₀), Volatile Organic Compounds (VOC), p-Xylenes, 1,3-Butadiene, Acrolein, m-Xylenes, Toluene, Phenol, Xylenes (isomers and mixture), Formaldehyde, 2,2,4-Trimethylpentane, Benzene (including benzene from gasoline), Acetaldehyde, Naphthalene, o-Xylenes, Ethylene glycol, Hexane (as n-Hexane), Polycyclic organic matter, Carbonyl disulfide, Arsenic, Beryllium, Chromium Compounds, Cobalt Compounds. Lead, Mercury, Halon 1301, Reduced sulfur compounds, Hydrogen sulfide, Methanol, Ethylbenzene, Glycol Ethers, Dichlorodifluoromethane (R-21), Chlorodifluoromethane (R-22), Chlorotrifluoromethane and Trifluoromethane azeotropic mixture with approximately 60% Chlorotrifluoromethane (R-503), (Chlorotrifluoromethane) and (Trifluoromethane).

Facility Classifications:

- (1) 18 AAC 50.300(b)(2)
- (2) 18 AAC 50.300(c)(1)

Operating Permit Classifications:

- (1) 18 AAC 50.325(b)(1)
- (2) 18 AAC 50.325(b)(3)

Section 3. Source Listing and Description

Sources listed in Table 1 have source specific monitoring, recordkeeping, or reporting conditions stated elsewhere in this permit. Source descriptions and ratings in Table 1 are for identification purposes only.

Table 1 - Source Inventory

ID	Source Tag No.	Source Description	Fuel	Rating/size	Commence construction ¹
1	39-P-2AT	Avon Gas Generator	Distillate Oil	24,600 EGHP	1977 ²
2	39-P-2BT	Avon Gas Generator	Distillate Oil	24,600 EGHP	1977 ²
3	39-P-2CT	Avon Gas Generator	Distillate Oil	24,600 EGHP	1977 ²
4	39-G-1	Solar Turbine Electric Generator	Distillate Oil	800 kW	1977
5	39-G-2AT	Garrett Turbine Electric Generator	Distillate Oil	510 kW	1977
6	39-H-1A	Eclipse Heater	Distillate Oil	20.6 MMBtu/hr	1977
7	39-H-1B	Eclipse Heater	Distillate Oil	20.6 MMBtu/hr	1977
8	39-FP-2PK	Cummins N-855F Firewater Pump	Distillate Oil	400 KW	1980
9	TK-2	OSCP Bldg. Fuel Oil Storage Tank	Distillate Oil	350 bbl (55.6 m ³)	1992

Table Notes

1 Commence construction per 40 CFR 52.21(b) and (i) and 40 CFR 60.2

2 The mainline turbine packages, which contain Source ID(s) 1 through 3, were constructed prior to October 1977. The mainline turbine positions were permitted and modified in 1996 with the installation of rim -cooling on the reaction turbine (Cooper Bessemer) portion of the mainline turbine unit packages. At the time of permit issuance, Source IDs 1 through 3 are complying with 40 CFR 60 Subparts A and GG requirements. The Permittee has requested a determination from EPA on whether the addition of rim-cooling constituted a 40 CFR 60.14 modification. Until such time that EPA formally determines that the addition of rim cooling was not a 40 CFR 60.14 modification, the Permittee is required to comply with the applicable parts of 40 CFR 60 Subpart A and GG.

Section 4. Fee Requirements

1. Assessable Emissions

The permittee shall pay to the department annual emission fees based on the facility's assessable emissions as determined by the department under 18 AAC 50.410. The assessable emission fee rate is set out in 18 AAC 50.410. The department will assess fees per ton of each air contaminant that the facility emits or has the potential to emit in quantities greater than 10 tons per year. The quantity for which fees will be assessed is the lesser of

- 1.1 the facility's assessable potential to emit (PTE) of 2,368 tons per year (TPY); or
- 1.2 the facility's projected annual rate of emissions that will occur from July 1 to the following June 30, based upon actual annual emissions emitted during the most recent calendar year or another 12 month period approved in writing by the department, when demonstrated by
 - a. an enforceable test method described in 18 AAC 50.220;
 - b. material balance calculations;
 - c. emission factors from EPA's publication AP-42, Vol. I, adopted by reference in 18 AAC 50.035; or
 - d. other methods and calculations approved by the Department.

[18 AAC 50.346(a)(1), 5/3/02 and 18 AAC 50.350(c) & 50.400 – 50.420, 1/18/97]

2. Assessable Emission Estimates.

Emission fees will be assessed as follows:

- 2.1 no later than March 31 of each year, the Permittee may submit an estimate of the facility's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emissions Estimate, 410 Willoughby Ave., Juneau, AK 99801-1795; the submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates; or
- 2.2 If no estimate is received on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit set forth in condition 1.1
- 2.3 The estimate of assessable emissions provided under paragraph 2.1 above may include a gross estimate of emissions for any insignificant sources defined under 18 AAC 50.335(q) through (v) located at the facility. Documentation is not required for subsequent submittals unless requested by the Department.

[18 AAC 50.346(a)(1), 5/3/02 and 18 AAC 50.350(c) & 50.400 – 50.420, 1/18/97]

Section 5. Source-Specific Requirements

Fuel-Burning Equipment

- 3. Visible Emissions.** In accordance with 18 AAC 50.055(a)(1), the Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from Source ID(s) 1 – 8 listed in Table 1 to reduce visibility through the exhaust effluent by any of the following:
- a. greater than 20 percent for a total of more than three minutes in any one hour¹;
[18 AAC 50.055(a)(1), 1/18/97 & 40 CFR 52.70, 11/18/98]
 - b. more than 20 percent averaged over any six consecutive minutes²
[18 AAC 50.055(a)(1), 5/3/02]
- 3.2 For each of Source ID(s) 1 – 8 that are operated for more than 400 hours per calendar year, the Permittee shall monitor, record and report visible emissions in accordance with Section 13.
- 3.3 For Source ID(s) 1-8 record and report under Condition 48, the hours of operation per month and the calendar year-to-date hours for each source.
[18 AAC 50.350(g) - (h), 1/18/97]
- 3.4 Report under Condition 46 if the visible-emission standard in Condition 3 is exceeded.
[18 AAC 50.350(g)-(i), 1/18/97& 18 AAC 50.346(c), 5/3/03]
- 4. Particulate Matter.** The Permittee shall not cause or allow particulate matter emitted from Source IDs 1 - 8 listed in Table 1 to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours. The Permittee shall monitor, record and report particulate matter for Source IDs 1 - 8 in accordance with Section 13 if operated for more than 400 hours per calendar year.
[18 AAC 50.055(b)(1) & 50.350(g) – (i), 1/18/97]
[18 AAC 50.350(d)(1)(C), 6/21/98]
- 5. Sulfur Compound Emissions.** In accordance with 18 AAC 50.055(c), the Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from Source ID(s) 1 – 8 to exceed 500 ppm averaged over three hours.
[18 AAC 50.055(c), 1/18/97; 18 AAC 50.346(c), 5/3/02; 18 AAC 50.350(d)(1)(D); 1/18/97]
- 5.1** No liquid fuel with a weight percent sulfur in excess of 0.24 shall be burned in Source ID(s) 1- 8.

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¹ For purposes of this permit, the “more than three minutes in any one hour” criterion in this condition and 21 will no longer be effective when the Air Quality Control (18 AAC 50) regulation package effective 5/3/02 is adopted by the U.S. EPA.

² The six-minute average standard is enforceable only by the state until 18 AAC 50.055(a)(1), dated May 3, 2002, is approved by EPA into the SIP at which time this standard becomes federally enforceable.

5.2 Sulfur Compound Emissions – Monitoring and Recordkeeping

- a. The Permittee shall:
 - (i) Obtain a statement or receipt from the fuel supplier verifying the sulfur content of the fuel for each shipment of fuel delivered to the facility; or
 - (ii) Analyze a representative sample of the fuel from the facility fuel storage tank(s) once per calendar month to determine the sulfur content. Acceptable ASTM test methods include D2880-87, D4294-98, or later versions, other listings under 18 AAC 50.035, or an alternative method approved by the department.
- b. If a load of fuel contains greater than 0.75% sulfur by weight, the permittee shall calculate SO₂ emissions in PPM using the Standard Operating Permit Condition XII – SO₂ Material Balance Calculation, adopted by reference in 18 AAC 50.346(c), or Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).

[18 AAC 50.350(g) - (h), 1/18/97 & 18 AAC 346(c), 5/3/02]

5.3 Sulfur Compound Emissions – Reporting. The Permittee shall report in accordance with this condition.

- a. Report under Condition 46 whenever fuel is received that does not meet the requirements of Condition 5.1.
- b. Report under Condition 46 if SO₂ emissions calculated under Condition 5.2b exceed 500 ppm. When reporting under this condition, include the calculation under the Standard Operating Permit Condition XII – SO₂ Material Balance Calculation adopted by reference in 18 AAC 50.346(c).
- c. Include in the facility operating report required by Condition 48, a list of the liquid fuel sulfur content received at the facility during the reporting period or the results of the monthly analysis from the facility fuel storage tank(s). Indicate whether the sulfur content results were provided by the fuel supplier or based upon the monthly sampling of the facility storage tank(s). Include any reports required by Condition 5.3a or 5.3b.

[AQC Permit No. 9572-AA005]

[18 AAC 50.350(i), 1/18/97 & 18 AAC 346(c), 5/3/02]

SO₂ Requirements for Source ID(s) 1-3)

6. The Permittee shall use monitoring data obtained by Condition 5 and 19 to calculate and report in the operating report required by Condition 48, the following:
 - 6.1 The total calculated emissions of sulfur dioxide, in tons, from Source IDs 1 – 3 for each month.
 - 6.2 The total calculated emissions of sulfur dioxide, in tons, from Source IDs 1- 3 for the previous consecutive 12-month period starting from January 1, 2004.

[AQC Permit No. 9572-AA005]

[18 AAC 50.350(g)-(i), 1/18/97]

NO_x Requirements for Source ID(s) 1 through 3

7. The Permittee shall not allow the NO_x emission rate of Source IDs 1 - 3 to exceed 161 ppmv NO_x corrected to 15% O₂, ISO conditions, for operation between 7,501 and 7,900 rpm.

[AQC Permit No. 9572-AA005 Exhibit B]

8. The Permittee shall install, operate, and maintain a monitoring system to measure and record operating parameters necessary to calculate the emissions of NO_x from each Avon gas generator, based on the equation in Condition 9. Operating parameters must be recorded at least every 30 minutes.

[AQC Permit No. 9572-AA005, as amended July 2, 1997]

9. Alternative Monitoring Plan (AMP) for NO_x: The Permittee shall install, calibrate, operate, and maintain instrumentation necessary to calculate NO_x emissions for each turbine on which "rim-cooling" has been installed, according to the following equation:

Ambient Corrections

$$\text{beta} = \beta = 0.97698 + 0.00038722 * T_{in}$$

$$\text{theta} = \theta = (T_{in} + 460)/519$$

Gas Generator Speed Correction

$$N_{corr} = \frac{N_{obs}}{\sqrt{q}}$$

Calculated Corrected Exhaust Mass Flow

$$M_{exh\ corr} = -718.28 + 0.20184 * N_{corr} - 1.1161 \times 10^{-5} * (N_{corr})^2$$

Calculated Corrected Fuel Mass Flow

$$M_{fcorr} = \frac{-263,010 + 57.771 * N_{corr} - 0.0023036 * (N_{corr})^2}{LHV}$$

Calculated Corrected Exhaust Mass / Fuel Mass Ratio

$$EF_{corr} = M_{exh\ corr} / M_{f\ corr}$$

Calculated Site Air Fuel Mass Ratio

$$AF_{site} = (EF_{corr} / (\text{Beta} * \text{Theta})) - 1$$

Calculated Liquid Fuel NOx Emissions

$$NOx_{calc} = 0.0713(AF_{site})^2 - 13.438(AF_{site}) + 733.59$$

Where: N_{obs} is the observed speed of the gas generator (rpm).
 T_{in} is the inlet temperature to the gas generator (°F).
 N_{corr} is the gas generator speed corrected for inlet temperature (rpm).
LHV is the lower heating value of the fuel Btu/scf for natural gas or
Btu/lbm for liquid fuel.

- 9.1 Calculate for each day the 24-hour average and maximum one-hour concentration of NO_x, corrected to ISO conditions and 15% oxygen for each Avon gas generator. Calculations shall use measurements taken every 30 minutes or less. The temperature sensors shall be located in such a manner to be representative of the inlet conditions of the Avon gas generators.

[AQC Permit No. 9572-AA005, as amended July 2, 1997]

- 9.2 Record and report in the facility operating report required by Condition 48 the results of daily calculations required by Condition 9.1.

[AQC Permit No. 9572-AA005]
[18 AAC 50.350(g) – (i), 1/18/97]

10. During the periods that rim-cooling is installed, the Permittee shall:

- 10.1 Calculate the increase in NO_x emitted from the Avon Gas Generators (Source ID(s) 1-3) each month based on the information obtained from Condition 8. The increase in NO_x from the Avon Gas Generators (Source IDs 1-3) is the total measured or calculated emissions of NO_x from the Avon Gas Generators minus the calculated (allowable) emissions assuming operation at 7,500 rpm at the same ambient temperature, and 140 ppmv NO_x corrected to 15% oxygen in the exhaust.

[AQC Permit No. 9572-AA005]

- 10.2 Report the following in the facility operating report required by Condition 48:

- a. The total emissions of oxides of nitrogen, in tons, from the Avon gas generators, Source ID(s) 1-3, for each month.
- b. The total emissions of oxides of nitrogen, in tons, from the Avon gas generators, Source ID(s) 1-3, for the previous consecutive 12-month period starting from January 1, 2004.
- c. The monthly increase in oxides of nitrogen, in tons, from the Avon gas generators, Source ID(s) 1-3, as required by Condition 10.1.
- d. The previous consecutive 12-month period increase in oxides of nitrogen, in tons, from the Avon gas generators, Source ID(s) 1-3, starting from January 1, 2004.

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- e. The highest 24-hour average and the maximum one hour calculated NO_x average emissions from the Avon Gas Generators for any day that the unit(s) are operated during the reporting period.

[AQC Permit No. 9572-AA005]
[18 AAC 50.350(g) – (i), 1/18/97]

- 10.3 The Permittee may operate three Avon Gas Generators (Source ID(s) 1- 3) with rim-cooling up to 7,900 rpm. The permittee shall limit the facility increase in oxides of nitrogen (NO_x) emissions to 39.0 tons per year as determined by Condition 10.1.

[AQC Permit No. 9572-AA005]

11. The Permittee shall immediately notify the Department's Fairbanks Air Quality Maintenance Office, within 24 hours by telephone (907) 451-2139; facsimile (907) 451-2187, and in writing within five working days, to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician, when the increase in emissions of NO_x reaches 35 tons, determined as described in Condition 10.1 of this permit.

[AQC Permit No. 9572-AA005]

12. The Permittee shall conduct a source test every two years on each rim-cooled unit, with the first test occurring in 2004, to demonstrate compliance with the AMP predicted NO_x emissions. The testing requirement of this condition is waived if the rim-cooled unit is no longer operated over 400 hours per calendar year, or if rim-cooling is removed.

[AQC Permit No. 9572-AA005]
[18 AAC 350(g) – (i), 1/18/97]

13. **Turbine Relocations.** The Permittee may move turbine engines, from a pool of turbine engines, from location to location between TAPS pump stations to allow for maintenance of turbine engines. Conditions 13.1 through 13.5 apply only to the Solar gas turbines.

- 13.1 The Permittee shall maintain, for each turbine engine, records of the maintenance, repairs, parts replacement, including the date of each servicing, the service performed, and the costs of the service.

- 13.2 The Permittee shall record in a log or equivalent the following information each time a turbine engine from the pool is switched into service:

- a. The date the switched occurred;
- b. Identification of the removed turbine and the substitute turbine engine by make, model, date of manufacture, serial number, maximum heat input, and location.

- 13.3 The Permittee shall submit with the first facility operating report required by Condition 48 a complete list of all turbine engines maintained as part of a pool which contains an NSPS Subpart GG turbine, with information on the make, model, date of manufacture, serial number, maximum heat input, and location for each turbine engine.

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- 13.4 The Permittee shall notify the Department in writing no later than 14 days after any rotation of an NSPS Subpart GG turbine into an operating turbine position.
- 13.5 The Permittee shall submit a copy of the records required by Condition 13.2 with the facility operating report required by Condition 48 for all turbine engines switched during the reporting period.

[40 CFR 70.6(a)(9), 11/18/98]
[EPA Letter, 40 CFR 60 Subpart GG Applicability Determination, 8/1/02]
[18 AAC 50.350(g) - (i) & 50.346(c), 5/3/02]

Sources Subject to Federal New Source Performance Standards (NSPS), Subparts A and GG

Source ID(s) 1 through 3: The requirements of NSPS Subparts A and GG in Condition 14 and the state requirements in Condition 16 will no longer apply to Source ID(s) 1 through 3 if EPA determines that the addition of 'rim cooling' did not constitute a 40 CFR 60.14 modification.

14. Turbines Subject to NSPS, 40 CFR Part 60 Subparts A and GG. For Sources ID 1 through 3 the Permittee shall:

[18 AAC 50.040(a)(2)(V), 7/2/00]
[40 C.F.R. 60.332(a), 7/1/99]

- 14.1 Not burn fuel with a sulfur content in excess of 0.8 percent by weight.

[18 AAC 50.040(a)(2)(V), 7/2/00]
[40 C.F.R. 60.333(a) & (b), 7/1/99]

- 14.2 Not emit NO_x in excess of 161 PPM at 15 percent O₂, ISO conditions.

[18 AAC 50.040(a)(2)(V), 7/2/00]
[40 C.F.R. 60.332 (a) & (d), 7/1/99]

- 14.3 Monitor the sulfur content of the fuel being burned in accordance with 40 CFR 60.334(b), or by a custom schedule approved by the Administrator. Monitoring for fuel nitrogen is not required consistent with the fuel monitoring exemption approved by EPA.

[18 AAC 50.040(a)(2)(V), 7/2/00]
[40 C.F.R. 60.334(b), 7/1/99]
[EPA Letter, 8/11/94]

- 14.4 Submit the fuel monitoring reports semiannually in accordance with 40 CFR 60.7(c), (d), and 60.334(c).

[18 AAC 50.040(a)(1) & (a)(2)(V), 7/2/00]
[40 C.F.R. 60.7(c) and (d), 60.334 (c), 7/1/99]

- 14.5 Maintain records of startup, shutdown, and malfunction as required by 40 CFR 60.7(b).

[18 AAC 50.040(a)(1), 7/2/00]
[40 C.F.R. 60.7(b), 7/1/99]

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- 14.6 Maintain a record of all measurements, including performance tests, and all other information under 40 CFR Part 60 as required by 40 CFR 60.7(f).

[18 AAC 50.040(a)(1) & (a)(2)(V), 7/2/00]
[40 C.F.R. 60.7(f), 60.334 and 60.335, 7/1/99]

- 14.7 Maintain and operate in a manner consistent with good air pollution control practices for minimizing emissions as required by 40 CFR 60.11(d).

[18 AAC 50.040(a)(1), 7/2/00]
[40 C.F.R. 60.11(d), 7/1/99]

- 14.8 Not build, erect, install, or use any article, machine, equipment or process which conceals an emission which would otherwise constitute a violation of an applicable standard as required by 40 CFR 60.12.

[18 AAC 50.040(a)(1), 7/2/00]
[40 C.F.R. 60.12, 7/1/99]

15. Report under condition 46 when the emission limits in conditions 6.1 or 6.2 are exceeded.

[18 AAC 50.350(i), 7/2/00]
[18 AAC 50.040(a)(2)(V), 7/2/00]

Turbines Subject to NSPS Subpart GG

16. NO_x Monitoring for Turbines Subject to Condition 14.2

- 16.1 **Monitoring.** For Source ID(s) 1 through 3, the Permittee shall monitor and report NO_x emissions in accordance with Conditions 8 through 10.

[18 AAC 50.350(g) - (i), 5/3/02, 50.220(a) - (c),
1/18/97, & 50.040(a)(1), 8/15/02]

40 CFR 60 Kb (Source ID 9)

The heating oil storage tank (Source ID 9) for the oil spill contingency plan (OSCP) building is subject to the recordkeeping requirements of 40 CFR 60.116b(a) and (b) because the tank was constructed in 1992, stores a volatile organic liquid as defined by 40 CFR 60.112b(k), and has a capacity of 350 bbls (14,700 gallons).

17. For Source ID 9, the Permittee shall maintain for the life of the source and keep readily accessible records showing:

17.1 the dimensions of the storage vessel; and

17.2 an analysis showing the capacity of the vessel.

[40 CFR 60.116b(a) & (b)]
[18 AAC 50.040(a)(2)(M)]

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- 18. Waivers.** The Permittee shall provide to the department a written copy of any U.S. EPA granted waiver of the federal emission standards, recordkeeping, monitoring, performance testing, or reporting requirements, or approved custom monitoring schedules upon request by the department. The Permittee shall keep a copy of each U.S. EPA issued monitoring waiver or custom monitoring schedule with the permit.

Section 6. Facility-Wide Requirements

The monitoring, reporting, and recordkeeping requirements of this section are not applicable to sources that are not operated during the reporting period.

Avon Gas Generators (Source ID(s) 1 through 3)

19. The Permittee shall not allow the two Avon Gas Generators combined to exceed the fuel consumption rates listed in Table 2 below.

Table 2 – Operating Limit Fuel Consumption

Average Daily Ambient Temperature	Maximum Fuel Consumption Rate (Gallons/Day)
60°F or higher	78,600
40 to 59°F	83,400
20 to 39°F	87,300
0 to 19°F	91,200
-20 to -1°F	95,100
-40 to -21°F	98,400
Less than -40°F	>98,400

[AQC Permit No. 9572-AA005]

- 19.1 For Source IDs 1 through 3, install, operate, and maintain in good working order a system for daily recording and monitoring: ambient temperature, operating time (hours/day), Avon Gas Generator speed (RPM), and fuel consumption. Permittee shall at least twice per calendar year, for each Avon Gas Generator operated over 1,000 hours per calendar year, verify the accuracy and precision of the monitors used for ambient temperature, rpm speed, and fuel consumption. The acceptance criteria for the ambient temperature is within +/- 5 deg. F and within +/- 5% for the rpm speed and fuel consumption meters. In the event, that the instrumentation is found to exceed the acceptance criteria, the Permittee shall take corrective action to repair, replace, or recalibrate the instrumentation, as appropriate, such that the acceptance criteria is met. Permittee shall maintain records of the verification checks and any corrective actions performed. For each Avon gas generator operated during the reporting period:
- Record the daily fuel consumption, average daily ambient temperature and average daily rpm speed for each Avon gas generator.

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- b. Report in the facility operating report required by Condition 48, the daily fuel consumption, average daily ambient temperature and average daily rpm speed for each Avon gas generator.
 - c. Indicate if fuel consumption is calculated from operating time, ambient temperature, and turbine speed, as described in Condition 19.2 rather than measured with a fuel flow meter.

[18 AAC 50.350(g) - (i), 7/2/00]
[AQC Permit No. 9572-AA005]

19.2 In the event of a fuel meter malfunction, calculate the fuel consumption for the Avon gas generators based on operational readings taken every four hours. The amount of fuel calculated for each 4-hour interval will be summed to estimate the total fuel consumed during a 24-hour period. The fuel consumption shall be calculated as follows:

Ambient Corrections

$$\text{beta} = \beta = 0.97698 + 0.00038722 * T_{in}$$

$$\text{delta} = \delta = P_{\text{baro}}/29.92$$

$$\text{theta} = \theta = (T_{in} + 460)/519$$

Gas Generator Speed Correction

$$N_{corr} = \frac{N_{obs}}{\sqrt{q}}$$

ISO Corrected Fuel Consumption

$$Q_{ISO} = \frac{-263,010 + (57.771 * N_{corr}) - 0.0023036 * (N_{corr})^2}{LHV * Density}$$

Site Fuel Consumption

$$Q_{site} = Q_{ISO} * b * \sqrt{q} * d * 3600(\text{sec onds} / \text{hour}) * 4 \left(\frac{\text{hours}}{\text{time block}} \right)$$

Daily Fuel Consumption

$$Q_{total} = \sum Q_{site}$$

Where: N_{obs} is the observed speed of the gas generator (rpm).

T_{in} is the inlet temperature to the gas generator ($^{\circ}\text{F}$).

P_{baro} is the site barometric pressure (inches Hg).

LHV is the lower heating value of the fuel (Btu/lbm).

Density is the density of the liquid fuel (lbm/gal).

Q_{fsite} is the fuel consumption for one 4-hour block of time (gallons).

Q_{total} is the amount of fuel consumed in one day (gallons/day).

For the above calculations to determine the fuel usage, the values for T_{in} , P_{baro} , and turbine speed, shall be taken at 4-hour intervals or less. The location of the temperature and pressure sensors shall be located in such a manner to be representative of the inlet condition of the Avon Gas generators.

[AQC Permit No. 9572-AA005]

19.3 Report, under condition 46, when the fuel limits of Condition 19 are exceeded.

[AQC Permit No. 9572-AA005]
[18 AAC 350(g) – (i), 1/18/97]

Section 7. Insignificant Sources

This section contains the requirements that the Permittee identified under 18 AAC 50.335(q)(2) as applicable to insignificant sources at the facility. This section also specifies the testing, monitoring, recordkeeping, and reporting for insignificant sources that the Department finds necessary to ensure compliance with the applicable requirements. Insignificant sources are not exempted from any air quality control requirement or federally enforceable requirement.

As set out in 18 AAC 50.350(m), the shield of AS 46.14.290 does not apply to insignificant sources.

20. For sources at the facility that are insignificant as defined in 18 AAC 50.335(q)-(v) that are not listed in this permit, the following apply:

20.1 the Permittee shall submit the compliance certifications of Condition 49 based on reasonable inquiry;

20.2 the Permittee shall comply with the requirements of Condition 31;

20.3 the permittee shall report in the operating report required by Condition 48 if a source listed in this condition because of actual emissions less than the thresholds of 18 AAC 50.335(r) has actual emissions greater than any of those thresholds,

20.4 no other monitoring, recordkeeping, or reporting is required,

[18 AAC 50.346(b)(1), 5/3/02]

21. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from an industrial process, fuel-burning equipment, or an incinerator to reduce visibility through the exhaust effluent by any of the following:

21.1 more than 20% for more than three minutes in any one hour³,

[18 AAC 50.055(a)(1), 1/18/97, 40 CFR 52.70, 11/18/98]

21.2 more than 20% averaged over any six consecutive minutes⁴,

[18 AAC 50.055(a)(1), 5/3/02]

22. The Permittee shall not cause or allow particulate matter emitted from an industrial process or fuel-burning equipment to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours

[18 AAC 50.055(b)(1), 1/18/97]

23. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from an industrial process or fuel-burning equipment, to exceed 500 ppm averaged over three hours.

[18 AAC 50.055(c), 1/18/97]

³ See Footnote 1

⁴ See Footnote 2

Section 8. Generally Applicable Requirements

- 24. Asbestos NESHAP.** The Permittee shall comply with the requirements set forth in 40 C.F.R. 61.145, 61.150, and 61.152, and the applicable sections set forth in 40 C.F.R. 61, Subpart A and Appendix A to 40 CFR 61 Subpart M.

[18 AAC 50.040(b)(3) & 50.350(d)(1), 1/18/97]
[40 C.F.R. 61, Subparts A & M, 12/19/96]

- 25. Refrigerant and Halocarbon Recycling and Disposal.** The Permittee shall comply with the standards for recycling and emission reduction of refrigerants and Halon set forth in 40 C.F.R. 82, Subparts F through H.

[18 AAC 50.040(d) & 50.350(d)(1), 1/18/97]
[40 C.F.R. 82, Subpart F & H, 7/1/97]

- 26. Good Air Pollution Control Practice.⁵** The permittee shall do the following for Source ID(s) 1 to 9:

- a. perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;
- b. keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format;
- c. keep a copy of either the manufacture's or the operator's maintenance procedures.

[18 AAC 50.346(b)(2), 5/3/02]

- 27. Dilution.** The Permittee shall not dilute emissions with air to comply with this permit.

[18 AAC 50.045(a), 1/18/97]

- 28. Reasonable Precautions to Prevent Fugitive Dust.** A person who causes or permits bulk materials to be handled, transported, or stored, or who engages in an industrial activity or construction project shall take reasonable precautions to prevent particulate matter from being emitted into the ambient air.

[18 AAC 50.045(d) & 18 AAC 50.350(d)(1), 1/18/97]

- 29. Stack Injection.** The Permittee shall not release materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack at a source constructed or modified after November 1, 1982, unless approved in writing by the Department.

[18 AAC 50.055(g), 1/18/97]

- 30. Open Burning and Firefighter Training.**

The Permittee shall comply with the applicable requirements of 18 AAC 50.065(a – k) when conducting open burning at the facility.

⁵ This condition does not apply to NSPS, NESHAPs and Part 82 sources..

30.1 Firefighter Training: Structures.

A fire service may open burn structures for firefighter training without ensuring maximum combustion efficiency under the following circumstances:

- a. before igniting the structure, the fire service shall
 - (i) obtain department approval for the location of the proposed firefighter training; approval will be based on whether the proposed open burning is likely to adversely affect public health in the neighborhood of the structure;
 - (ii) visually identify materials in the structure that might contain asbestos, test those materials for asbestos, and remove all materials that contain asbestos;
 - (iii) ensure that the structure does not contain
 - (A) putrescible garbage;
 - (B) electrical batteries;
 - (C) stored chemicals such as fertilizers, pesticides, paints, glues, sealers, tars, solvents, household cleaners, or photographic reagents;
 - (D) stored linoleum, plastics, rubber, tires, or insulated wire;
 - (E) hazardous waste;
 - (F) lead piping;
 - (G) plastic piping with an outside diameter of four inches or more; or
 - (H) urethane or another plastic foam insulation;
 - (iv) provide public notice consistent with 18 AAC 50.065(j); and
 - (v) ensure that a fire-service representative is on-site before igniting the structure;
- b. the fire service shall ignite and conduct training on only one main structure and any number of associated smaller structures at a time; examples of associated smaller structures are garages, sheds, and other outbuildings; and
- c. the fire service shall respond to complaints in accordance with 18 AAC 50.065(k).

30.2 Firefighter Training: Fuel Burning.

Unless a greater quantity is approved by the department, a fire service may open burn up to 250 gallons of uncontaminated fuel daily and up to 600 gallons yearly for firefighter training without ensuring maximum combustion efficiency. To conduct this training without prior written department approval, the fire service shall

- a. provide public notice consistent with 18 AAC 50.065(j) before burning more than 20 gallons of uncontaminated fuel, unless waived in writing by the department; and
- b. respond to complaints in accordance with 18 AAC 50.065(k).

[18 AAC 50.065, 1/18/97]

31. Air Pollution Prohibited. No person may permit any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.

[18 AAC 50.110, 1/18/97]

31.1 If emissions present a potential threat to human health or safety, the permittee shall report any such emissions according to condition 46.

31.2 As soon as practicable after becoming aware of a complaint that is attributable to emissions from the facility, the permittee shall investigate the complaint to identify emissions that the permittee believes have caused or are causing a violation of condition 31.

31.3 The permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if

- a. after an investigation because of a complaint or other reason, the permittee believes that emissions from the facility have caused or are causing a violation of condition 31; or
- b. the department notifies the permittee that it has found a violation of condition 31.

31.4 The permittee shall keep records of

- a. the date, time, and nature of all emissions complaints received;
- b. the name of the person or persons that complained, if known;
- c. a summary of any investigation, including reasons the permittee does or does not believe the emissions have caused a violation of condition 31; and
- d. any corrective actions taken or planned for complaints attributable to emissions from the facility.

31.5 With each facility operating report under condition 48, the permittee shall include a brief summary report which must include

- a. the number of complaints received;
- b. the number of times the permittee or the department found corrective action necessary;
- c. the number of times action was taken on a complaint within 24 hours; and
- d. the status of corrective actions the permittee or department found necessary that were not taken within 24 hours.

31.6 The permittee shall notify the department of a complaint that is attributable to emissions from the facility within 24 hours after receiving the complaint, unless the permittee has initiated corrective action within 24 hours of receiving the complaint.

[18 AAC 50.350(d)-(l), 1/18/97]

[18 AAC 50.346(a)(2), 5/3/02]

32. Technology-Based Emission Standard. If an unavoidable emergency, malfunction, or non-routine repair, as defined in 18 AAC 50.235, causes emissions in excess of a technology-based emission standard, the Permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard, and shall report the excess emission under Condition 46.

[18 AAC 50.235(a) & 50.350(f)(3), 1/18/97]

33. Permit Renewal. To renew this permit, the Permittee shall submit an application under 18 AAC 50.335 no sooner than **May 30, 2007** and no later than **May 30, 2008** to renew this permit.

[18 AAC 50.335(a), 1/18/97]

Section 9. General Source Testing and Monitoring Requirements

- 34. Requested Source Tests.** In addition to any source testing explicitly required by the permit, the Permittee shall conduct source testing as requested by the department to determine compliance with applicable permit requirements.

[18 AAC 50.220(a), 1/18/97 & 18 AAC 50.345(k), 5/3/02]

- 35. Extension Request.** The Permittee may request an extension to a source test deadline established by the department. The Permittee may delay a source test beyond the original deadline only if the extension is approved in writing by the department's appropriate division director or designee.

[18 AAC 50.345(l), 5/3/02]

- 36. Test Plans.** Before conducting any source tests requested per Condition 34, the Permittee shall submit a plan to the department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance and must specify how the source will operate during the test and how the Permittee will document that operation. The Permittee shall submit a complete plan within 60 days after receiving a request under Condition 34 and at least 30 days before the scheduled date of any test unless the department agrees in writing to some other time period. Retesting may be done without resubmitting the plan. The Permittee is not required to comply with this condition when the exhaust is observed for visible emissions, except in connection with required particulate matter testing.

[18 AAC 50.220(c)(3), 50.350(b)(3), 50.350(g) & 50.990(88), 1/18/97
& 18 AAC 50.345(a) & (m), 5/3/02]

- 37. Test Notification.** At least 10 days before conducting a source test requested per Condition 34, the Permittee shall give the department written notice of the date and the time the source test will begin. The Permittee is not required to comply with this condition when the exhaust is observed for visible emissions, except in connection with required particulate matter testing.

[18 AAC 50.345(a) & (n), 5/3/02, and 18 AAC 50.350(b)(3), 1/18/97]

- 38. Test Reports.** Within 60 days after completing a source test requested per Condition 34, the Permittee shall submit two copies of the results in the format set out in the *Source Test Report Outline*, adopted by reference in 18 AAC 50.030. The Permittee shall certify the results in accordance with Condition 42. If requested in writing by the department, the Permittee must provide preliminary results in a shorter period of time specified by the department. The Permittee is not required to comply with this condition when the exhaust is observed for visible emissions, except in connection with required particulate matter testing.

[18 AAC 50.350(b)(3) and 18 AAC 50.350(h) – (i), & 18 AAC 50.345(a) & (o), 5/3/02]

- 39. Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing

39.1 at a point or points that characterize the actual discharge into the ambient air; and

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- 39.2 at the maximum rated burning or operating capacity of the source or another rate determined by the department to characterize the actual discharge into the ambient air.

[18 AAC 50.220(a), 1/18/97]

40. Reference Test Methods. The Permittee shall use the following as reference test methods, or other methods approved by the department when conducting source testing or visible emissions observations for compliance with this permit.

- 40.1 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60.

[18 AAC 50.040(a), 7/2/00, 18 AAC 50.220(c)(1)(A) and 18 AAC 50.350(g), 1/18/97]
[Federal Citation: 40 C.F.R. 60, 7/1/99]

- 40.2 Source testing for emissions of particulate matter, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organics, metals, and acid gases must be conducted in accordance with the methods and procedures specified 40 C.F.R. 60, Appendix A.

[18 AAC 50.040(a)(4), 7/2/00, 18 AAC 50.220(c)(1)(E) and 18 AAC 50.350(g), 1/18/97]
[Federal Citation: 40 C.F.R. 60, Appendix A, 7/1/99]

- 40.3 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(b) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 61.

[18 AAC 50.040(b), 50.220(c)(1)(B) & 50.350(g), 1/18/97]
[40 C.F.R. 61, 12/19/96]

- 40.4 Visible emissions observations for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in 40 C.F.R. 60, Appendix A Method 9.

[18 AAC 50.030, 12/30/00]
[18 AAC 50.220(c)(1)(D) & 50.350(g), 1/18/97]

41. Excess Air Requirements. To determine compliance with this permit, standard exhaust gas volumes must only include the volume of gases formed from the theoretical combustion of fuel, plus the excess air volume normal for the specific source type, corrected to standard conditions (dry gas at 68° F and an absolute pressure of 760 millimeters of mercury).

[18 AAC 50.220(c)(3), & 18 AAC 50.990(88), 5/3/02]

Section 10. General Recordkeeping, Reporting, and Compliance Certification Requirements

- 42. Certification.** The Permittee shall certify all reports, compliance certifications, or other documents submitted to the Department and required under the permit by including the signature of a responsible official for the permitted facility following the statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete." Excess emission reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal. When certifying a compliance certification, the official's signature must be notarized.

[18 AAC 50.205, 18 AAC 50.345(j), 18 AAC 50.350(b)(3) & 18 AAC 50.350(i), 5/3/02]

- 43. Submittals.** Unless otherwise directed by the Department or this permit, the Permittee shall send reports, compliance certifications, and other documents required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician.

[18 AAC 50.350(i), 1/18/97]

- 44. Information Requests.** The Permittee shall furnish to the department, within a reasonable time, any information the department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records required by this permit. The Department, in its discretion, will require the Permittee to furnish copies of those records directly to the federal administrator.

[18 AAC 50.200, 50.345(a)(8), 50.350(b)(3), & 50.350(g) – (i), 1/18/97]

- 45. Recordkeeping Requirements.** The Permittee shall keep all records required by this permit for at least five years after the date of collection, including:

[18 ACC 50.350(h), 1/18/97]

45.1 copies of all reports and certifications submitted pursuant to this section of the permit; and

45.2 records of all monitoring required by this permit, and information about the monitoring including:

- a. calibration and maintenance records, original strip chart or computer-based recordings for continuous monitoring instrumentation;
- b. sampling dates and times of sampling or measurements;
- c. the operating conditions that existed at the time of sampling or measurement;
- d. the date analyses were performed;
- e. the location where samples were taken;

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- f. the company or entity that performed the sampling and analyses;
 - g. the analytical techniques or methods used in the analyses; and
 - h. the results of the analyses.

46. Excess Emission and Permit Deviation Reports.

46.1 Except as provided in Condition 31, the permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

- a. in accordance with 18 AAC 50.240(c), as soon as possible after the event commences or is discovered, report
 - (i) emissions that present a potential threat to human health or safety; and
 - (ii) excess emissions that the permittee believes to be unavoidable;
- b. in accordance with 18 AAC 50.235(a), within two working days after the event commenced or was discovered, report an unavoidable emergency, malfunction, or non-routine repair that causes emissions in excess of a technology based emission standard;
- c. report all other excess emissions and permit deviations
 - (i) within 30 days of the end of the month in which the emissions or deviation occurs or was discovered, except as provided in condition 46.1c(ii);
 - (ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the department provides written permission to report under condition 46.1c(i); and
 - (iii) for failure to monitor, as required in other applicable conditions of this permit.

46.2 When reporting excess emissions, the permittee must report using either the department's on-line form, which can be found at www.dec.state.ak.us/awq/excess/report.asp, or, if the permittee prefers, the form contained in Section 16 of this permit. The permittee must provide all information called for by the form that is used.

46.3 When reporting a permit deviation, the permittee must report using the form contained in Section 16 of this permit. The permittee must provide all information called for by the form.

46.4 If requested by the department, the permittee shall provide a more detailed written report as requested to follow up an excess emissions report.

[18 AAC 50.235(a)(2), 50.240(c), & 50.350(i), 1/18/97; and 18 AAC 50.346(a)(3), 5/3/02
[18 AAC 50.235(a)(2), 50.240(c), & 50.350(i), 1/18/97]

47. NSPS and NESHAP Reports. The Permittee shall:

- 47.1 attach to the facility operating report required by condition 48, copies of any NSPS, NESHAPs, or MACT reports required by 40 CFR Parts 60,61 or 63 and submitted to the U.S. Environmental Protection Agency (EPA) Region as required by Conditions 14 and 24, and
- 47.2 notify the Department and provide a written copy of any EPA-granted waiver of the federal emission standards, recordkeeping, monitoring, performance testing, or reporting requirements, or approved custom monitoring schedules within 30 days after receipt of a waiver or schedule. Keep a copy of each EPA issued monitoring waiver or custom monitoring schedule with the permit at the facility.

[18 AAC 50.040, 7/2/00]
[18 AAC 350(i)(2), 1/18/97]
[40 C.F.R. 60 & 40 C.F.R. 61, 7/1/99]

48. Operating Reports. During the life of this permit, the Permittee shall submit an original and two copies of an operating report by August 1 for the period January 1 to June 30 of the current year and by February 1 for the period July 1 to December 31 of the previous year.

- 48.1 The operating report must include all information required to be in operating reports by other conditions of this permit.
- 48.2 If excess emissions or permit deviations that occurred during the reporting period are not reported under condition 48.1, either
 - a. The Permittee shall identify
 - (i) the date of the deviation;
 - (ii) the equipment involved;
 - (iii) the permit condition affected;
 - (iv) a description of the excess emissions or permit deviation; and
 - (v) any corrective action or preventive measures taken and the date of such actions.
 - b. when excess emissions or permit deviations have already been reported under condition 46, the Permittee may cite the date or dates of those reports.
- 48.3 The operating report must include a listing of emissions monitored under Section 13, which trigger additional testing or monitoring, whether or not the emissions monitored exceed an emission standard. The permittee shall include in the report
 - a. the date of the emissions;
 - b. the equipment involved;

-
- c. the permit condition affected; and
 - d. the monitoring result which triggered the additional monitoring.

[18 AAC 50.346(b)(3), 5/3/02]

49. Annual Compliance Certification. Each year by March 31, the Permittee shall compile and submit to the Department an original and two copies of an annual compliance certification report as follows:

- 49.1 For each permit term and condition set forth in Section 3 through Section 11, including terms and conditions for monitoring, reporting, and recordkeeping:

[18 AAC 50.350(d)(4), 1/18/97]

- a. certify the compliance status over the preceding calendar year consistent with the monitoring required by this permit;
- b. state whether compliance is intermittent or continuous;
- c. briefly describe each method used to determine the compliance status; and
- d. notarize the responsible official's signature.

- 49.2 Submit a copy of the report directly to the EPA-Region 10, Office of Air Quality, M/S OAQ-107, 1200 Sixth Avenue, Seattle, WA 98101.

[18 AAC 50.350(j), 1/18/97]

Section 11. Standard Conditions Not Otherwise Included in the Permit

- 50.** The Permittee must comply with each permit term and condition. Noncompliance constitutes a violation of AS 46.14, 18 AAC 50, and the Clean Air Act, except for those requirements designated as not federally-enforceable, and is grounds for:

50.1 an enforcement action,

50.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280, or

50.3 denial of an operating-permit renewal application.

[18 AAC 50.345(a)(1) & 50.350(b)(3), 1/18/97]

- 51.** It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.

[18 AAC 50.345(a)(2) & 50.350(b)(3), 1/18/97]

- 52.** Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of this permit.

[18 AAC 50.345(a)(3) & 50.350(b)(3), 1/18/97]

- 53.** Compliance with permit terms and conditions is considered to be compliance with those requirements that are:

53.1 included and specifically identified in the permit, or

53.2 determined in writing in the permit to be inapplicable.

[18 AAC 50.345(a)(4) & 50.350(b)(3), 1/18/97]

- 54.** The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any operating permit condition.

[18 AAC 50.345(a)(5) & 50.350(b)(3), 1/18/97]

- 55.** The permit does not convey any property rights of any sort, nor any exclusive privilege.

[18 AAC 50.345(a)(6) & 50.350(b)(3), 1/18/97]

- 56.** The Permittee shall allow an officer or employee of the Department or an inspector authorized by the Department, upon presentation of credentials and at reasonable times with the consent of the owner or operator, to:

56.1 enter upon the premises where a source subject to the operating permit is located or where records required by the permit are kept,

56.2 have access to and copy any records required by the permit,

56.3 inspect any facilities, equipment, practices, or operations regulated by or referenced in the permit, and

56.4 sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

[18 AAC 50.345(a)(7) & 50.350(b)(3), 1/18/97]

Section 12. Permit As Shield from Inapplicable Requirements

In accordance with AS 46.14.290, and based on information supplied in the facility application, this section of the permit contains the requirements determined by the Department not to be applicable to the Pump Station 9 (PS 9) facility.

Table 3 identifies the sources that are not subject to the specified requirements at the time of permit issuance. Some of the requirements listed below may become applicable during the permit term due to an invoking event, even though the requirement is deemed inapplicable at the time of permit issuance.

57. If any of the requirements listed in Table 3 become applicable during the permit term, the Permittee shall comply with such requirements on a timely basis by obtaining a construction permit or an operating permit revision, as necessary.

Table 3 - Permit Shields Granted.

Source or Group of Sources	Requirements Not Applicable	Reason for non-applicability
Tank: 190 - Crude Oil Breakout	40 C.F.R. 60 Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids	Commenced construction prior to effective date of subpart (May 18, 1978). The tank has not been modified or reconstructed since the effective date of the standard. The tank is a crude oil breakout tank (not storage vessel as defined in 40 C.F.R. 60) and part of a pipeline system as defined by 49 C.F.R. 195.2.
	40 C.F.R. 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)	Commenced construction prior to effective date of subpart (July 23, 1984). The tank has not been modified or reconstructed since the effective date of the standard. The tank is a crude oil breakout tank (not storage vessel as defined in 40 C.F.R. 60) and part of a pipeline system as defined by 49 C.F.R. 195.2.
	40 C.F.R. 60 Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids	Subpart K is a work practice standard. In the case <i>Adamo Wrecking</i> , 434 US 257 (1978), the U.S. Supreme Court determined that work practices standards were not authorized by the Clean Air Act. The EPA documented this decision for purposes of Subpart K in a memorandum dated August 10, 1979. EPA transmitted a specific letter to Alyeska stating the application of the decision for the crude oil tanks. Therefore, Subpart K is not enforceable. In addition, the tank was not modified or reconstructed during the applicable time period of Subpart K.
Tanks: 197 & 198 Turbine Fuel Tanks	40 C.F.R. 60 Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids	Commenced construction prior to effective date of subpart (May 18, 1978). The tank has not been modified or reconstructed since the effective date of the standard. In addition, diesel fuel oils are excluded from the definition of a petroleum liquid [40 CFR 60.111a(b)].

Source or Group of Sources	Requirements Not Applicable	Reason for non-applicability
	40 C.F.R. 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)	Commenced construction prior to effective date of subpart (July 23, 1984). The tank has not been modified or reconstructed since the effective date of the standard.
	40 C.F.R. 60 Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids	Subpart K is a work practice standard. In the case <i>Adamo Wrecking</i> , 434 US 257 (1978), the U.S. Supreme Court determined that work practices standards were not authorized by the Clean Air Act. The EPA documented this decision for purposes of Subpart K in a memorandum dated August 10, 1979. EPA transmitted a specific letter to Alyeska stating the application of the decision for the crude oil tanks. Therefore, Subpart K is not enforceable. In addition, the tank was not modified or reconstructed during the applicable time period of Subpart K, and diesel fuel oils are excluded from the definition of a petroleum liquid [40 CFR 60.111(b)].
Tank: TK-2 (<i>Source ID 9</i>)	40 CFR 60 Subpart A – General Provisions	Not applicable per 40 CFR 60.110b(b), because the tank capacity is less than 75 m ³ .
	40 CFR 60 Subpart K – Standards of Performance for Storage Vessels for Petroleum Liquids	Tank capacity is below the size threshold and was constructed after the applicability dates.
	40 CFR 60 Subpart Ka – Standards of Performance for Storage Vessels for Petroleum Liquids	Tank capacity is below the size threshold and was constructed after the applicability dates.
	40 CFR 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels [except § 60.116b(a) and (b)]	Not applicable, per 40 CFR 60.110(b), because the tank capacity is less than 75 m ³ .
Source ID 4 <i>Gas Turbine:</i> 39-G-1	40 C.F.R. 60. Subpart GG - Standards of Performance for Stationary Gas Turbines	Commenced construction prior to effective date of subpart (10/3/77). The solar turbine has not been modified or reconstructed, as defined in 40 CFR 60.14 or 60.15, respectively.
Source ID 5 <i>Gas Turbine:</i> 39-G-2AT	40 C.F.R. 60 Subpart GG - Standards of Performance for Stationary Gas Turbines	Maximum heat input capacity at peak load is less than 10.7 gigajoules per hour (10 MMBtu/hr) (based upon lower heating value of fuel fired).

Source or Group of Sources	Requirements Not Applicable	Reason for non-applicability
Source IDs 6 & 7 <i>Eclipse heater</i> 39-H-1A 39-H-1B	40 C.F.R. 60 Subpart Dc	Commenced construction prior to effective date of subpart (6/9/89). At the time of this application, boilers have not been modified or reconstructed, as defined by 40 C.F.R. 60.14 or 60.15, respectively.
Facility-Wide	40 C.F.R. 60 Subpart LLL - Standards of Performance for Onshore Natural Gas Processing Plants	Facility does not process natural gas [40 C.F.R. 60.640] and commenced construction prior to effective date of subpart (January 20, 1984). Facility has not been modified or reconstructed since the effective date of the standard.
Facility-Wide	40 C.F.R. 61 Subpart A - General Provisions	Other than the asbestos renovation and demolition requirements of Subpart M this subpart does not apply to this facility because it only applies where there are subparts applicable to the facility and no other Part 61 subparts apply to this facility.
Facility-Wide	40 C.F.R. 61 Subpart J - National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene	No process components in <i>benzene service</i> , as defined by subpart (10 percent benzene by weight) [40 C.F.R. 61.110 and 61.111].
Facility-Wide	40 C.F.R. 61 Subpart V - National Emission Standard for Equipment Leaks (Fugitive Emission Sources)	No process components in <i>volatile hazardous air pollutant (VHAP) service</i> , as defined by subpart (≥ 10 percent VHAP by weight) [40 C.F.R. 61.241 and 61.245]. This subpart only applies where identified by another applicable Part 61 subpart [40 C.F.R. 61.240].
Facility-Wide	40 C.F.R. 61 Subpart Y - National Emission Standard for Benzene Emissions from Benzene Storage Vessels	The facility does not have storage tanks that store benzene as defined by the standards in 40 C.F.R. 61.270(a).
Facility-Wide	40 C.F.R. 61 Subpart BB - National Emission Standard for Benzene Emissions from Benzene Transfer Operations	Crude oil and petroleum distillates are exempt from this subpart [40 C.F.R. 61.300]. Other than crude oil and other petroleum distillates there are no other benzene containing substances where loading occurs at this facility.
Facility-Wide	40 C.F.R. 61 Subpart FF - National Emission Standard for Benzene Waste Operations	This subpart only applies to chemical manufacturing plants, coke byproduct recovery plants and petroleum refineries [40 C.F.R. 61.340]. This facility does not include any of those activities.

Source or Group of Sources	Requirements Not Applicable	Reason for non-applicability
Facility-Wide	40 C.F.R. 61 Subpart M - National Emission Standard for Asbestos §61.142 - Standard for Asbestos Mills	Facility is not an Asbestos Mill.
Facility-Wide	§61.144 - Standard for Manufacturing	Facility does not engage in any manufacturing operations using commercial asbestos.
Facility-Wide	§61.146 - Standard for Spraying	Facility does not spray or apply asbestos containing materials.
Facility-Wide	§61.147 - Standard for Fabricating	Facility does not engage in any fabricating operations using commercial asbestos.
Facility-Wide	§61.149 - Standard for Waste Disposal for Asbestos Mills	Applies only to those facilities subject to 40 C.F.R. 61.142 (Asbestos Mills).
Facility-Wide	§61.151 - Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations	Applies only to those facilities subject to 40 C.F.R. 61.142, 61.144, or 61.147 (Asbestos Mills, manufacturing or fabricating).
Facility-Wide	§61.153 - Standard for Reporting	No reporting requirements apply for sources subject to 40 C.F.R. 61.145 (demolition and renovation) [40 C.F.R. 61.153(a)].
Facility-Wide	§61.154 - Standard for Active Waste Disposal Sites	Facility not an active waste disposal site and does not receive asbestos containing waste material.
Facility-Wide	§61.155 - Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations	Facility does not process regulated asbestos containing material (RACM).
Facility-Wide	40 C.F.R. 63 Subpart T - National Emission Standards for Halogenated Solvent Cleaning	Facility does not operate halogenated solvent cleaning machines.
Storage Tanks	40 C.F.R. 63 Subpart OO - National Emission Standards for Tanks - Level 1	Provisions only apply to tanks subject to a subpart of 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart OO. The facility does not include any tanks subject to any subpart of Part 60, 61, or 63.
Portable Storage Containers	40 C.F.R. 63 Subpart PP - National Emission Standards for Containers	Provisions only apply to portable containers, as defined in §63.921, subject to a subpart of 40 C.F.R. 60, 61, or 63 that specifically references 40 C.F.R. 63 Subpart PP. The facility does not include any containers subject to any subpart of Part 60, 61, or 63.
Drain Systems	40 C.F.R. 63 Subpart RR - National Emission Standards for Individual Drain Systems	Provisions only apply to drain systems affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart RR. The facility does not include any drain systems subject to

Source or Group of Sources	Requirements Not Applicable	Reason for non-applicability
		any subpart of Part 60, 61, or 63 [40 C.F.R. 63.960].
Oil-Water Separators	40 C.F.R. 63 Subpart VV - National Emission Standards for Oil-Water Separators and Organic-Water Separators	EPA stated that these provisions were placed within this standard only for convenience and only where a facility is subject to another Part 60, 61, or 63 subpart that references Subpart VV [40 C.F.R. 63.1040]. This facility is not subject to any subpart in Part 60, 61, or 63 that references Subpart VV.
Facility-Wide	40 C.F.R. 68 - Accidental Release: Risk Management Plan (RMP)	Part 68 applies to "stationary sources" [40 C.F.R. 68.10]. "Stationary source" is defined for the purposes of Part 68 to exclude facilities engaged in the transportation of hazardous liquids and subject to 49 CFR Parts 192, 193, and 195 [40 CFR 68.3]. TAPS PS-9 transports and stores crude oil subject to the federal Pipeline Safety Act and 49 CFR Part 195. The transportation of crude oil by this pump station and the incidental storage in the pump station breakout tank are not activities that fall within the definition of a stationary source. Therefore, Part 68 does not apply to PS-9. There are not threshold quantities or other 112(r) regulated substances at PS-9. Therefore, Part 68 does not apply to PS-9.
Facility-Wide	40 C.F.R. 82.1 Subpart A - Production and Consumption Controls	Facility does not produce, transform, destroy, import or export Class I or Group I or II substances or products.
Facility-Wide	40 C.F.R. 82.30 Subpart B - Servicing of Motor Vehicle Air Conditioners	Facility does not service motor vehicle air conditioners.
Facility-Wide	40 C.F.R. 82.60 Subpart C - Ban on Nonessential Products Containing Class I Substances and Ban on Nonessential Products Containing or Manufactured with Class II Substances	Facility does not manufacture or distribute Class I and II products or substances.
Facility-Wide	40 C.F.R. 82.80 Subpart D - Federal Procurement	Subpart applies only to Federal departments, agencies, and instrumentalities.
Facility-Wide	40 C.F.R. 82.100 Subpart E - The Labeling of Products Using Ozone-Depleting Substances	Facility does not manufacture or distribute Class I and II products or substances.
Facility-Wide	40 C.F.R. 82.158 Subpart F - Recycling and Emissions Reduction	Facility does not manufacture or import recovery and recycling equipment.
Facility-Wide	40 C.F.R. 82.160 - Recycling and Emissions Reduction	Facility does not contract equipment testing organizations to certify recovery and recycling equipment.
Facility-Wide	40 C.F.R. 82.164 - Recycling and Emissions Reduction	Facility does not sell reclaimed refrigerant.
Facility-Wide	18 AAC 50.055(a)(2) - (a)(9)	Facility does not operate sources specific to the listed standards.

Source or Group of Sources	Requirements Not Applicable	Reason for non-applicability
Facility-Wide	18 AAC 50.055(d) - (f)	Facility does not operate sources specific to the listed standards.
Facility-Wide	18 AAC 50.055(g)	The facility does not emit any emissions from a stack other than process emissions, products of combustion, or materials introduced to control pollutant emissions without the approval of the department. Incinerators are not fuel burning equipment as defined in 18 AAC 50.990(40). Therefore the solid waste incinerators are exempt from this requirement.
Facility-Wide	18 AAC 50.075	Facility heating sources are not wood-fired devices.

[18 AAC 50.350(l), 1/18/97]

Section 13. Visible Emissions and PM Monitoring, Recordkeeping and Reporting

Visible Emissions Observations for Liquid Fuel Combustion

58. Visible Emissions Monitoring. When burning liquid fuel for more than 400 hours per source in any calendar year the Permittee shall observe the exhaust of Source ID(s) 1 through 8 for visible emissions using the Method 9 Plan under Condition 58.1.

58.1 Method 9 Plan. For all 18-minute observations in this plan, observe exhaust, following 40 C.F.R. 60, Appendix A-4, Method 9, adopted by reference in 18 AAC 50.040(a), for 18 minutes to obtain 72 consecutive 15-second opacity observations.

- a. First Method 9 Observation. Observe exhaust for 18 minutes within the first 30 days of operation of the source after 400 hours of operation on liquid fuel in any calendar year.
- b. Monthly Method 9 Observations. After satisfying Condition 58.1a, for any month the source operates equal to or more than 12 hours then perform an 18 minute observation during the following calendar month. If the source does not operate 12 hours in that following month, then perform the 18-minute observation during the next calendar month the source does operate for 12 hours or more. There shall be only three monthly observations per source under this condition.
- c. Semiannual Method 9 Observations. After satisfying Condition 58.1b, perform an 18-minute observation during any calendar month in the next consecutive 6-month period if the source continues to operate at least 12 hours in each month of the 6 month cycle. Complete two observations under this schedule, and each observation must be during the second, third or fourth month of each six-month cycle. If the source exhibits a six-minute average greater than 15 percent and one or more observations are greater than 20 percent, observe emissions in accordance with Condition 58.1e.
- d. Annual Method 9 Observations. After satisfying Condition 58.1c, perform an 18-minute observation during the next 12-month period if the source continues to operate at least 12 hours in any calendar month of the 12-month cycle. Complete a single observation each 12-month cycle, and each observation must be during the fourth, fifth, sixth, seventh, eighth or ninth month of each 12 month cycle. If the source exhibits a six-minute average greater than 15 percent during and one or more observations are greater than 20 percent, then comply with Condition 58.1e.
- e. Increased Method 9 Frequency. If a six-minute average opacity is observed during the most recent set of observations to be greater than 15 percent and one or more observations are greater than 20 percent, then increase or maintain the 18-minute observation frequency for that source to monthly observations in accordance with condition 58.1b until the criteria in condition 58.1c for semiannual monitoring are met.

59. Visible Emissions Recordkeeping. The Permittee shall keep records in accordance with this condition.

59.1 the observer shall record

- a. the name of the facility, emissions source and location, facility type, observer's name and affiliation, and the date on the Visible Emissions Field Data Sheet below;
- b. the time, estimated distance to the emissions location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), plume background, and operating rate (load or fuel consumption rate) on the sheet at the time opacity observations are initiated and completed;
- c. the presence or absence of an attached or detached plume and the approximate distance from the emissions outlet to the point in the plume at which the observations are made;
- d. opacity observations to the nearest five percent at 15-second intervals on the Visible Emissions Observation Record below; and
- e. the minimum number of observations required by the permit; each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period;

59.2 to determine the six-minute average opacity, divide the observations recorded on the record sheet into sets of 24 consecutive observations; sets need not be consecutive in time and in no case shall two sets overlap; for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24; record the average opacity on the sheet;

- a. calculate and record the highest 18-consecutive-minute average observed.

60. Visible Emissions Reporting. The Permittee shall report, in each facility operating report under Condition 48, visible emissions as follows:

60.1 for each source under the Method 9 Plan,

- a. copies of the observation results (i.e. opacity observations) except for the observations the Permittee has already supplied to the department; and
- b. a summary to include:
 - (i) number of days observations were made;
 - (ii) highest six-minute average observed; and

-
- (iii) dates when one or more observed six-minute averages were greater than 20 percent; and

60.2 a summary of any monitoring or recordkeeping required under Conditions 58 and 59 that was not done;

60.3 report as an excess emission or permit deviation under Condition 46:

- a. the results of Method 9 observations that exceed an average 20 percent for any six-minute period; and
- b. if any monitoring under Condition 58 was not performed when required, report within three days of the date the monitoring was required.

[18 AAC 50.346(c), 5/3/02]

61. Particulate Matter Monitoring for Diesel Engines and Liquid-Fired Turbines (Source ID(s) 1 – 5, and 8). The Permittee shall conduct source tests on diesel engines and liquid-fired turbines, Source ID(s) 1 through 5, and 8 if operated on liquid fuel over 400 hours per calendar year, to determine the concentration of particulate matter (PM) in the exhaust of a source in accordance with this Condition 61.

61.1 Within six months of exceeding the criteria of Condition 61.2a or 61.2b, either

- a. conduct a PM source test according to conditions 34 through 41; or
- b. make repairs so that emissions no longer exceed the criteria of Condition 61.2; to show that emissions are below those criteria, observe emissions as described in Condition 58.1 under load conditions comparable to those when the criteria were exceeded.

61.2 Conduct the test according to Condition 61.1 if

- a. 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity greater than 20 percent; or
- b. for a source with an exhaust stack diameter that is less than 18 inches, 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity that is greater than 15 percent and not more than 20 percent, unless the department has waived this requirement in writing.

61.3 During each one hour PM source test run, observe the exhaust for 60 minutes in accordance with Method 9 and calculate the average opacity that was measured during each one hour test run. Submit a copy of these observations with the source test report.

61.4 The automatic PM source test requirement in Condition 61.1 and 61.2 is waived for an emissions unit if a PM source test on that unit has shown compliance with the PM standard during this permit term.

[18 AAC 50.346(c), 5/3/02]

62. Particulate Matter Recordkeeping for Diesel Engines and Liquid-Fired Turbines.

Within 180 calendar days after the effective date of this permit, the Permittee shall record the exhaust stack diameter(s) of Source ID(s) 1 through 5 and 8. Report the stack diameter(s) in the next operating report under Condition 48.

[18 AAC 50.346(c), 5/3/02]

63. Particulate Matter Reporting for Diesel Engines and Liquid-Fired Turbines. The Permittee shall report as follows:

63.1 report under Condition 46

- a. the results of any PM source test that exceeds the PM emissions limit; or
- b. if one of the criteria of Condition 61.2 was exceeded and the Permittee did not comply with either Condition 61.1a or 61.1b, this must be reported by the day following the day compliance with Condition 61.1 was required;

63.2 report observations in excess of the threshold of Condition 61.2b within 30 days of the end of the month in which the observations occur;

63.3 in each facility operating report under Condition 48, include

- a. the dates, source ID(s), and results when an observed 18-minute average was greater than an applicable threshold in Condition 61.2;
- b. a summary of the results of any PM testing under Condition 61; and
- c. copies of any visible emissions observation results (opacity observations) greater than the thresholds of Condition 61.2, if they were not already submitted.

Particulate Matter from Heaters (Source ID(s) 6 and 7)

64. Particulate Matter Monitoring. If operated for more than 400 hours per calendar year on liquid fuels the permittee shall conduct source tests on Source ID(s) 6 and 7 to determine the concentration of PM in the exhaust of Source ID(s) 6 and 6 as follows:

64.1 If corrective maintenance performed within the first 180 days of exceeding the visible emissions standard in Condition 3, as observed under Condition 58.1, fails to eliminate visible emissions greater than 20 percent opacity, conduct a PM source test according to the requirements set out in Section 10 within 90 days. To show that the emissions are below the 20% opacity criteria, observe emissions as described in Condition 58.1 under load conditions comparable to those when the criteria was exceeded.

64.2 During each one-hour PM source test run, observe the exhaust for 60 minutes in accordance with Method 9 and calculate the average opacity that was measured during each one-hour test run.

64.3 The PM source test requirement in Condition 64 is waived for an emission unit if:

- a. a PM source test during the most recent semiannual reporting period on that unit shows compliance with the PM standard since permit issuance, or
- b. if a follow-up visible emission observation conducted using Method-9 during the 90 days shows that the excess visible emissions described in Condition 64.1 no longer occur.

65. Particulate Matter Recordkeeping. The Permittee shall keep records of the results of any PM testing and visible emissions observations conducted under conditions 64.1 and 64.3.

[18 AAC 50.350(h), 5/3/02]

66. Particulate Matter Reporting.

66.1 In each facility operating report required by Condition 48, include:

- a. The dates, Source ID(s), and results when an 18-minute opacity observation was greater than the applicable threshold criterion in 64.1.
- b. A summary of the results of any PM testing and visible emissions observations conducted under conditions 64.1 and 64.2.

66.2 Report excess emissions, in accordance with Condition 46, any time the results of a source test for PM exceeds the PM emission limit stated in Condition 4.

[18 AAC 50.350(i), 5/3/02]

Section 14. Visible Emission Forms

Visible Emissions Field Data Sheet

Certified Observer: _____

Company: _____

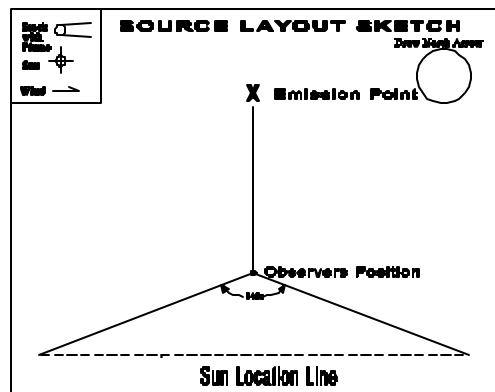
Location: _____

Test No.: _____ Date: _____

Source: _____

Production Rate, Operating Rate &
Unit Operating Hours: _____

Hrs. of observation: _____



Clock Time	Initial				Final
Observer location					
Distance to discharge					
Direction from discharge					
Height of observer point					
Background description					
Weather conditions					
Wind Direction					
Wind speed					
Ambient Temperature					
Relative humidity					
Sky conditions: (clear, overcast, % clouds, etc.)					
Plume description:					
Color					
Distance visible					
Water droplet plume? (Attached or detached?)					
Other information					

Page ____ of ____

Test Number _____ Clock time _____

[illegible]

Observer Signature

Duration of Observation Period (minutes) _____
 Number of Observations _____
 Number of Observations exceeding 20% _____

Set Number	Time Start—End	Opacity	
		Sum	Average

Section 15. ADEC Notification Form

Fax this form to: (907) 269-7508 Telephone: (907) 269-8888

Alyeska Pipeline Service Company

Company Name

Pump Station 9 (PS-9)

Facility Name

Reason for notification:

☐ **Excess Emissions**

If you checked this box

Fill out section 1

☐ **Other Deviation from Permit Condition**

If you checked this box

fill out section 2

When did you discover the Excess Emissions or Other Deviation:

Date: __/__/__ Time: __:__

Section 1. Excess Emissions**1. Event Information (Use 24-hour clock):**

	START Time: (hr:min):	END Time:	Duration
Date: _____	_____:	_____:	_____:
Date: _____	_____:	_____:	_____:
		Total:	_____:

2. Cause of Event (Check all that apply):

☐ START UP

☐ UPSET CONDITION

☐ CONTROL EQUIPMENT

☐ SHUT DOWN

☐ SCHEDULED MAINTENANCE

☐ OTHER _____

Attach a detailed description of what happened, including the parameters or operating conditions exceeded.

3. Sources Involved:

Identify each emission source involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.

Source ID No.	Source Name	Description	Control Device
_____	_____	_____	_____
_____	_____	_____	_____

4. Emission Limit Potentially Exceeded

Identify each emission standard potentially exceeded during the event. Attach a list of ALL known or suspected injuries or health impacts. Identify what observation or data prompted this report. Attach additional sheets as necessary.

Permit Condition	Limit	Emissions Observed
_____	_____	_____
_____	_____	_____

5. Excess Emission Reduction:

Attach a description of the measures taken to minimize and/or control emissions during the event.

6. Corrective Actions:

Attach a description of corrective actions taken to restore the system to normal operation and to minimize or eliminate chances of a recurrence.

7. Unavoidable Emissions:

Do you intend to assert that these excess emissions were unavoidable?

☐ YES ☐ NO

Do you intend to assert the affirmative defense of 18 AAC 50.235?

☐ YES ☐ NO

Section 2. Other Permit Deviations

(a) Sources Involved:

Identify each emission source involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.

Source ID No.	Source Name	Description	Control Device
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

(b) Permit Condition Deviation:

Identify each permit condition deviation or potential deviation. Attach additional sheets as necessary.

Permit Condition	Potential Deviation
_____	_____
_____	_____
_____	_____

(c) Corrective Actions:

Attach a description of actions taken to correct the deviation or potential deviation and to prevent recurrence.

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Printed Name:

Signature:

Date

Alaska Department of Environmental Conservation

Air Permits Program

October 13, 2003

Pump Station 9 (PS-9)

STATEMENT OF BASIS

for the terms and conditions of

Permit No. 079TVP01

Prepared by Christian Beaudrie

and Bob Morgan

INTRODUCTION

This document sets forth the legal and factual basis for the terms and conditions of Operating Permit No. 079TVP01. The "Statement of Basis" only serves to provide background information regarding the terms and conditions contained the Operating Permit No. 079TVP01. This document does not create nor impose any requirements on the Permittee.

Pump Station 9 is a crude oil pipeline pumping facility. The purpose of Pump Station 9 is to support the transportation of crude oil by TAPS. The operation of Pump Station 9 is supported by several auxiliary activities due to its remote location, including maintenance and support facilities.

FACILITY IDENTIFICATION

Section 1 contains information on the facility as provided in the title V permit application. The facility is owned by BP Pipelines (Alaska) Inc., ExxonMobil Pipeline Company, Phillips Alaska Transportation, Inc., Unocal Pipeline Company, and Williams Alaska Pipeline Company, LLC. Alyeska Pipeline Service Company is the operator of the facility and is the Permittee for the facility's operating permit.

SOURCE INVENTORY AND DESCRIPTION

As provided in the application, the facility contains the following regulated sources: five liquid fuel fired turbines for pumps and generators, two diesel fired heaters, a diesel IC engine (firewater pump), and a fuel oil storage tank. The majority of the sources at the facility were installed in 1977 and commenced construction prior to that date.

The sources at the facility regulated Operating Permit No. 079TVP01 are identified and described in Table 1 in Section 3 of the permit. The table is provided for information and identification purposes only. Specifically, the source rating/size provided in the table is not intended to create an enforceable limit.

EMISSIONS

Table 1 contains emission information as provided in the application. A summary of the potential to emit (PTE) from the Pump Station 9 (PS-9) is shown in the table below.

Table A - Emissions Summary, in Tons Per Year (tpy)

Pollutant	NO _x	CO	PM-10	SO ₂	VOCs	Total
PTE	1207	451	91.2	581	37.1	2367.3
Assessable PTE	1207	451	91.2	581	37.1	2367.3

The assessable PTE listed under condition 1.1 is the sum of the emissions of each individual regulated air contaminant for which the facility has the potential to emit quantities greater than

10 tpy. The emission estimates are based upon on former 18 AAC 50.400 AQC Permit to Operate No. 9572-AA005. HAP emissions were calculated using GRI HAP-Calc v.3.01 software. The VOCs at this facility consist of 4.0 tons per year of Hazardous Air Pollutants and 33.1 tons per year of non-hazardous volatile organic compounds.

The emissions listed in Table A are estimates that are for informational use only. The listing of the emissions does not create an enforceable limit for the facility.

BASIS FOR REQUIRING AN OPERATING PERMIT

Section 2 includes a description of the regulatory classifications of the Pump Station 9 (PS 9). This facility requires an operating permit under 18 AAC 50.325(b)(1) because it has the potential to emit 100 tons per year (tpy) or more of a regulated air contaminant. The facility also requires an operating permit under 18 AAC 50.325(b)(3) because it contains sources subject to federal NSPS standards adopted by reference in 18 AAC 50.040(a) – (c).

Alaska regulations require operating permit applications to include identification of “regulated sources.” As applied to PS 9 the state regulations require a description of:

- ⇒ Each source regulated by a standard in 18 AAC 50.055, Industrial Processes and Fuel Burning Equipment, under 18 AAC 50.335(e)(4)(C);
- ⇒ Each source subject to a standard adopted by reference in 18 AAC 50.040 under 18 AAC 50.335(e)(2); and
- ⇒ Sources subject to requirements in an existing Department permit 18 AAC 50.335(e)(5).

The emission sources at PS 9 are classified as “regulated sources” according to the above Department regulations are listed in Table 1 Operating Permit No. 079TVP01.

CURRENT AIR QUALITY PERMITS

Construction Permits

The most recent permit issued for this facility was Construction Permit No. 9872-AA026. Construction Permit No. 9872-AC028 was issued on December 4, 1998 which removed (amended) several limits and conditions contained in the facility’s former 18 AAC 50.400 operating permit (AQC Permit No. 9572-AA005).

Title-V Operating Permit Application History

The operator signed an application on October 1, 1997.

The operator supplemented the application in November 1998, March 2000, and December 2001.

COMPLIANCE HISTORY

The facility began operation in 1977. Review of the permit files for this facility, which includes the past inspection reports indicate a facility generally operating in compliance with its operating

permit. The requirements of a Compliance Order By Consent (COBC) 90-2-4-5-262-1 issued in 1990 for PS 9 and other pipeline facilities has been implemented in each permit since 1990. The permittee appears to be in compliance with the requirements of this COBC for the PS 9 facility.

FACILITY-SPECIFIC REQUIREMENTS CARRIED FORWARD

State of Alaska regulations in 18 AAC 50.350(d)(1)(D) require that an operating permit include each facility-specific requirement established in a prior Air Quality Control Permit. Table C below lists the Air Quality Control permit condition that established a requirement in Air Quality Control Permit No. 9572-AA005 and the new condition Operating Permit No. 079TVP01 that carries the old requirement into the new permit.

**Table B - Comparison Permit No. 9572-AA005 (as amended through December 4, 1998)
Conditions to Operating Permit No. 079TVP01 Conditions⁶**

Permit No. 9572-AA005 Condition number	Description of Requirement	Permit No. Operating Permit No. 079TVP01 Condition Number	How condition was revised
Introductory Text	No requirements within introductory text.	None	Old introductory text replaced by new text.
Exhibit A	Listing exemption for sources rated <1 MMBtu/hr	None	Replaced by Section 7, Insignificant sources
1	Comply with ambient air quality standards	None	Now required only for construction permits.
2 and Exhibit B	Comply with most stringent emission standards, limits, & specifications	Conditions 3 through 13 and 19.	Emission limits unchanged and now listed as conditions
3	Provide optimum control of emission	26	Same information, different format
4	No modification w/o notification	None	Not required
5	Refers to Exhibit B Limits	None	No need for the reference
6	Liquid fuel sulfur content may not exceed 0.24 percent by weight.	5.1	Same limit
7	Limit Avon(s) NOx increase to 39 tons	10.3	Same requirement.
8	Condition deleted by Permit No. 9872-AC028	None	Condition has been deleted by Permit No. 9872-AC028
9 – 13	Source testing requirements	Section 9	Similar requirements
14	Avon Turbine monitoring.	19.1	Same requirements
15	Determination of fuel sulfur content	5.2	Similar requirements

⁶ This table does not include all standard and general conditions

Permit No. 9572-AA005 Condition number	Description of Requirement	Permit No. Operating Permit No. 079TVP01 Condition Number	How condition was revised
16	NOx emission monitoring: Avons	8	Same requirement
17	Avon NOx increase calculation methodology	10.1	Same requirement
18	ADEC notification when NOx increase reaches 35 tons	11	Same requirement
19	Monthly Avon SO2 emissions calculation and reporting	6.1	Same requirement
20 and 21	Excess Emissions Reporting	46	Similar requirements
22	Facility Access	56	Similar requirements
23	Facility Operating Report	48	Similar requirements
24	Recordkeeping	45	Similar requirements
25	Display permit	None	No longer required
26	User Fees	Section 4	Similar requirements
27 and 28	One time source test requirement	None	Conditions fulfilled, no longer applicable
29	Annual emission test requirement	12	Revised requirement with clarification – Historic RATA test results from 1998 – 2000 have shown a consistently close correlation between source test data and predicted NOx emissions. Therefore the requirement to source test every year has been extended to every two years.
30	One time QA/QC plan submittal	None	Condition fulfilled, no longer applicable
Exhibit B – Part A. Operational Limitations	Combined Avon Gas Generator Fuel Consumption Limits.	19	Same limits
Exhibit B – Part B. Particulate Matter	20% Opacity not to be exceeded more than 3 minutes in any one hour not to exceed 0.05 gr/dscf	3 and 4	Same information as in previous permit, different format.
Exhibit B – Part C. Oxides of Nitrogen	NOx emission limitations (140 ppmv) for Avon Generator operations between 7,501 and 7,900 rpm	None	Requirement removed by AQC Permit No. 9572-AA005, Amendment #2.
Exhibit B – Part C. Oxides of Nitrogen	NOx emission limitations for Avon Generator operations between 7,501 and 7,900 rpm.	7	Same information as in previous permit.
Exhibit B – Part E. Sulfur Dioxide	500 ppmv not to be exceeded when averaged over any 3 consecutive hours.	5	Same information, different format
Exhibit C – Part I - Fuel Oil	Required testing method for determining sulfur content of fuel oils.	5.2	Same information, different format
Exhibit C – Part I - Fuel Use	Requirements for a monitoring system for fuel consumption by Avon Generators.	19	Similar requirements
Exhibit C – Part II – Continuous Emission	Alternate Monitoring Plan (AMP) for NOx	9	Same information, different format.

Permit No. 9572-AA005 Condition number	Description of Requirement	Permit No. Operating Permit No. 079TVP01 Condition Number	How condition was revised
And Process Monitoring Requirements			
Exhibit D Facility Operating Report Requirements #5a - f	NOx emissions calculation reporting	10.2	Similar requirements, terms corrected to be consistent with monitoring requirements
Exhibit D – Facility Operating Report Requirements #6a-b	SOx emissions calculation reporting	6	Similar requirements, terms corrected to be consistent with monitoring requirements.

LEGAL AND FACTUAL BASIS FOR THE PERMIT CONDITIONS

Legal Basis: The state and federal regulations for each condition are cited Operating Permit No. 079TVP01.

Conditions 1 - 2 Fee Requirements

Applicability: The regulations require all permits to include due dates for the payment of fees and any method the Permittee may use to re-compute assessable emissions.

Factual Basis: These standard conditions require the Permittee to pay fees in accordance with the Department's billing regulations. The billing regulations set the due dates for payment of fees based on the billing date.

The default assessable emissions are emissions of each air contaminant authorized by the permit (AS 46.14.250(h)(1)(A)). Air contaminant means any regulated air contaminant and any hazardous air contaminant. Therefore, assessable emissions under 18 AAC 50.250(h)(1)(A) means the potential to emit any air contaminant identified in the permit, including those not specifically limited by the permit

The conditions also describe how the Permittee may calculate **actual** annual assessable emissions based on previous actual annual emissions. According to AS 46.14.250(h)(1)(B), assessable emissions are based on each air contaminant. Therefore, fees based on actual emissions must also be paid on any contaminant emitted in excess of 10 tpy whether or not the permit contains any limitation of that contaminant.

If the Permittee does not choose to annually calculate assessable emissions, emissions fees will be based on “potential to emit” (PTE). The PTE set forth in the condition is based on a fuel sulfur content of 0.24% by weight.

Conditions 3, 4 and Section 13, Visible Emissions and PM Monitoring Plan

Applicability: Applies because these conditions detail the monitoring, recordkeeping, and reporting required in conditions 3 and 4.

Factual Basis: Conditions 3.a and 4 requires that the Permittee comply with the visible emission and particulate standard of 18 AAC 50.055. The Permittee shall not cause or allow the equipment to violate these standards. To ensure compliance, the Permittee is required to monitor emissions for the liquid fired fuel burning equipment operated over 400 hours per

calendar year in accordance with the visible emissions and PM monitoring plan contained in Section 13. This requirement also contains the Air Quality Control Permit No. 9572-AA005 requirement to monitor and report equipment operating hours for Source IDs 1-8.

The Particulate Matter monitoring, recordkeeping, and reporting conditions for diesel fired heaters and boilers has been written as facility specific requirements that are similar to the PM standard condition requirements for diesel turbines and engines. The intent of these conditions is to require periodic monitoring, recordkeeping, and reporting, for Source ID(s) 6 and 7 in accordance with 18 AAC 50.350 (g) – (i).

For Source ID(s) 1 to 8, visible and PM emissions monitoring is waived in accordance with recently issued Department Guidance AWQ 02-014 as long as the units are not operated more than 400 hours per calendar year on liquid fuel from the effective date of the permit. The Permittee is not required to start-up a source on liquid fuel for the sole purpose of conducting a visible emissions observation.

Condition 5, Sulfur Compound Emissions

Applicability: The sulfur emission standard applies to operation of all fuel-burning equipment in the State of Alaska. Source ID(s) 1 - 8 are fuel-burning equipment. The SIP standard for sulfur dioxide applies because it is contained in the federally approved SIP dated October, 1983. Monitoring of sulfur dioxide emissions is accomplished by analysis of fuel sulfur content.

Factual Basis: The condition requires the Permittee to comply with the sulfur emission standard applicable to fuel-burning equipment. The Permittee may not cause or allow their equipment to violate this standard.

Monitoring - Diesel Fuel (Fuel Oil) sulfur is measured in weight percent sulfur (wt% S). Calculations show that fuel containing no more than 0.75 wt% S will always comply with the emission standard. This is true for all liquid hydrocarbon fuels, even with no excess air. The Permittee is limited to a maximum fuel sulfur content of 0.24%. Compliance with the fuel sulfur limit will ensure compliance with the SIP standard for sulfur dioxide.

Recordkeeping - Keep records of the fuel sulfur content for each fuel shipment or monitor the sulfur content in the facility's fuel storage tanks.

Reporting - Report excess emissions in accordance with condition 46, and include copies of the records required within this condition with the facility operating report required under condition 48.

Condition 6 SO₂ Requirements for Source ID(s) 1 - 3

Applicability: This condition contains the Avon Gas Generators, Source ID(s) 1 – 3 SO₂ monitoring and reporting requirements from Air Quality Control Permit No. 9572-AA005, except the “year” term has been revised to “previous consecutive 12-month period” consistent with recent ADEC interpretation.

Factual Basis: The Permittee is required to monitor fuel sulfur content and report the monthly and annual SO₂ emissions from Source ID(s) 1 – 3. The monitoring of fuel consumption for these units shall be carried out by use of a system for recording and monitoring fuel consumption for each unit. In the event of a fuel meter malfunction, the fuel

consumption shall be calculated as outlined in this condition. For purposes of reporting under this condition, the Permittee shall start the reporting period from January 1, 2004.

Conditions 7 – 12 NO_x Requirements for Source ID(s) 1 - 3

Applicability: This condition contains the NO_x limit and monitoring, recordkeeping and reporting from Air Quality Control Permit No. 9572-AA005, except the “year” and “year-to-date” terms have been revised to a “consecutive 12-month period” consistent with recent ADEC interpretation.

Factual Basis: The operation of the Avon Gas Generators (Source ID(s) 1 –3) are restricted to 161 ppm when operated between 7,501 rpm and 7,900 rpm. These conditions established the monitoring criteria that the Permittee must follow to monitor and report NO_x emissions for the turbines equipped with “rim cooling”. These requirements include the use of an Alternative Monitoring Plan (AMP) for NO_x that calculates NO_x emissions based upon turbine speed and ambient temperature, which the Permittee is required to monitor and recorded every 30 minutes. The results of the NO_x monitoring are used to calculate the incremental increase in NO_x mass emissions above the facility’s baseline (allowable) NO_x emission level that is based upon Source ID(s) 1 - 3 operating at 7500 rpm. The incremental increase in NO_x emissions from the Avon Gas Generators is limited to 39.9 tons per year. Condition 11 requires that the Permittee notify the Department if the NO_x emission increase reach 35 tons.

Condition 16.1 requires that the Permittee report the NO_x emissions from each turbine to demonstrate compliance with the annual NO_x emission limit. Condition 12 requires that the Permittee periodically verify the accuracy of the AMP equation by performing on-site emission testing of the “rim-cooled” turbine and comparing the results to those predicted by the AMP. The testing interval has been increase from one year to every two years because the annual testing since 1997 has shown that the accuracy of the predicted NO_x emissions by the AMP is well within the accuracy acceptance criteria of 40 CFR 60 Appendix B Performance Specification 2. For purposes of reporting under Condition 10.2, the Permittee shall start the reporting period from January 1, 2004.

Condition 13 Turbine Relocations

Applicability: The turbine engines are removed from their operating locations periodically for maintenance and a turbine engine from the TAPS inventory of the same turbine engine family is substituted as a replacement. The equipment powered by the turbine engine (such as the pump or the electric generator) remains in place. Most of the turbines were manufactured and began operation on the TAPS prior to October 3, 1977, the applicability date for NSPS Subpart GG. The Permittee received a letter from EPA dated August 1, 2002 that concurred the practice of relocating turbine engines to existing turbine locations did not constitute a “commenced construction” under 60 CFR 52.21(b) or 40 CFR 60.2. To ensure that future Solar turbine engine changes do not result in a “modification” or a “reconstruction” as defined under 40 CFR 60, the Permittee is required to maintain maintenance records and to report under condition 48 the relocation and replacement of the Solar turbines.

Factual Basis: This condition requires monitoring, recordkeeping, and reporting to document the relocation and replacement of existing turbines from the pool does not

constitute a “modification” or “reconstruction”, as those terms are defined in 40 CFR 60 Subpart A.

Conditions 14 and 15 Turbines Subject to NSPS Subparts A and GG

Applicability: Pump Station 9 commenced construction prior to 1977. The Avon Gas Generator engines (Source ID(s) 1 -3) originally installed at the facility were manufactured prior to the 40 CFR 60 Subpart GG applicability date of October 3, 1977. As described for Condition 6, the Permittee has a pool of turbine engines including Avon gas generators are routinely used as replacement engines. Many of the replacement engines are not subject to the 40 CFR 60 Subpart GG requirements because they were manufactured prior to October 1977 and have not been modified or reconstructed pursuant to 40 CFR 60.14 and 60.15.

In 1993 and again in 1996, the Permittee obtained an ADEC permit to installed rim-cooling on the reaction portion of the mainline unit turbine package(s). The change was also treated by Alyeska as a modification under 40 CFR §60.2 and §60.14. The Permittee has requested concurrence from EPA that the addition of “rim-cooling” did not constitute a modification under 40 CFR 60.14 and that the source is not subject to 40 CFR 60 Subpart A and GG requirements. Until EPA makes a determination that that the addition of “rim-cooling” did not constitute a 40 CFR 60.14 modification, the Permittee is required to comply with the NSPS requirements.

Condition 8 requires that the Permittee report under Condition 46 if the 40 CFR 60 Subpart GG emission limits are exceeded.

Factual Basis: Condition 14 contains the on-going NSPS requirements for Source ID(s) 1 – 3 that the Permittee must comply with including a NO_x limit of 161 ppm (ISO conditions, 15% O₂) and a fuel sulfur limit of 0.8% by weight.

General Discussion -

NO_x Standard: For a turbine subject to 40 C.F.R. 60.332, the NO_x standard is determined by the following equation [40 CFR 60.332(a)(2)]:

$$STD_{NOX} = 0.015(14.4 / Y) + F$$

where,

- STD_{NOX} = allowable NO_x emissions (percent by volume at 15 percent oxygen and on a dry basis)
- Y = manufacturer’s maximum rated heat input (kJ/W-hr), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the affected facility. The value of Y shall not exceed 14.4 kJ/W-hr
- F = NO_x emissions allowance for fuel bound nitrogen, percent by volume, **assumed to be zero for Alaska fuel.**

For the Avon gas generator(s): Liquid Fired:

Heat Input (LHV) = 177 MMBtu/hr (52 MW) @ 7900 rpm

Output: 18,700 BHP (13.9 MW) @ 7900 rpm

$$Y = (177,000,000 \text{ Btu/hr})(1.05506 \text{ KJ/Btu}) / (18,700 \text{ BHP})(745.7 \text{ W/HP})$$

$$= 13.392 \text{ (use 13.4)}$$

$$STD_{NOX} = 0.015(14.4/Y) + F = 0.015(14.4/13.4) + 0 = 0.0161 \text{ vol\%} = \mathbf{161 \text{ ppmv}}$$

SO₂ Standard: The Permittee is required to comply with one of the following sulfur requirements for Source ID(s) 1 – 3:

- (1) do not cause or allow SO₂ emission in excess of 0.015 percent by volume, at 15 percent O₂ and on a dry basis (150 ppmvd), or
- (2) do not cause or allow the sulfur content for the fuel burned in Source ID(s) to exceed 0.8 percent by weight.

Condition 16 NO_x Monitoring for Turbines Subject to Condition 14.2

Applicability: This condition addresses the state-only requirements for on-going NO_x monitoring of NSPS subject turbines.

Factual Basis: This condition specifies the type of periodic NO_x monitoring that is required to demonstrate compliance with the NSPS NO_x limit. Since the Permittee is already required to monitor and report NO_x emissions in accordance to Conditions 8 through 12 no additional NO_x monitoring required.

Condition 17 NSPS Subpart Kb

Applicability: 40 CFR 60 Subpart Kb applies to each storage vessel with capacity over 40 m³ that store volatile organic liquids including diesel fuels, that were constructed after July 23, 1994. This condition applies to the oil spill contingency plan (OSCP) building heating oil storage tank (Source ID 9) because the tank was constructed in 1992, stores a volatile organic liquid as defined by 40 CFR 60.112b(k), and has a capacity of 55.6 m³ (14,700 gallons).

Factual Basis: The U.S. Environmental Protection Agency (EPA) regulates New Source Performance Standards (NSPS). The intent of NSPS is to provide technology-based emission control standards. EPA may delegate to each state the authority to implement and enforce standards of performance for new stationary sources located in that state. The department has incorporated by reference the NSPS for specific industrial activities, as listed in 18 AAC 50.040. However, EPA has not delegated to the department the authority to administer the NSPS program at this time.

This condition applies to the oil spill contingency plan (OSCP) building heating oil storage tank (Source ID 9) because the tank was constructed in 1992, stores a volatile organic liquid as defined by 40 CFR 60.112b(k) [fuel oil], and has a capacity of 350 bbls (14,700 gallons). Source ID 9 is only subject to the recordkeeping requirements of 40 CFR 60.116b(a) and (b) pursuant to 40 CFR 60.116b(b). The tank is not subject to 40 CFR 60 Subpart A requirements, pursuant to 40 CFR 60.110b(b), because the tank capacity is less than 75 m³. The 40 CFR 60.116b recordkeeping requirements are contained in Condition 17.

Condition 18 Waivers

Applicability: These requirements include the submittal of any waivers received from EPA and the state-only requirements for on-going NO_x monitoring of NSPS subject turbines.

Factual Basis: This condition requires that the Permittee provide the Department any waivers from EPA obtained during the permit term.

Condition 19 Avon Gas Generator Fuel Limits and Monitoring Requirements

Applicability: This condition has been carried forward from Air Quality Control Permit No. 9572-AA005.

Factual Basis: The fuel consumption limits for the three Avon Gas Generators are described in this condition. The monitoring of fuel consumption for these units shall be carried out by use of a system for recording and monitoring fuel consumption for each unit. In the event of a fuel meter malfunction, the fuel consumption shall be calculated as outlined in this condition.

In addition, new quality control and quality assurance requirements have been incorporated to require that the Permittee verify the accuracy and precision of the monitors used for Avon Gas Generator fuel consumption and speed, and ambient temperature. If the monitors are found to be out of the specified ranges, the Permittee must initiate corrective action. If the Avon gas generators are infrequently operated (less than 1000 hours per year) the requirement to verify the accuracy of the monitors is waived.

Condition 20.1 - 20.4 Insignificant Source Reporting

Applicability: These general emission standards apply to all industrial processes fuel-burning equipment, and incinerators regardless of size.

Factual Basis: The insignificant sources section of the permit replaces the 1 MMBtu/hr source exemption of former permits. 18 AAC 50.365(b) requires no notification when adding insignificant sources to the facility. The regulations require the Permittee to report if an insignificant source becomes significant and certify that their insignificant sources comply with applicable requirements. Insignificant sources must comply with the air pollution prohibitions. These conditions restate the regulatory requirement.

Conditions 20 - 23 Insignificant Sources

Applicability: These general emission standards apply to all industrial processes fuel-burning equipment, and incinerators regardless of size.

Factual Basis: These are general emission standards which apply to all industrial processes fuel-burning equipment, and incinerators regardless of size. The conditions reiterate the general standards and require compliance for insignificant sources. The Permittee may not cause or allow their equipment to violate these standards. Insignificant sources are not listed in the permit unless specific monitoring, recordkeeping and reporting are necessary to ensure compliance.

The department finds that the insignificant sources at this facility do not need specific monitoring, recordkeeping and reporting to ensure compliance.

Condition 24 Asbestos NESHAP

Applicability: The asbestos demolition and renovation requirements apply if the Permittee engages in asbestos demolition or renovation.

Factual Basis: The condition requires the Permittee to comply with asbestos demolition or renovation requirements in 40 C.F.R. 61, Subpart M. Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with these federal regulations.

Condition 25 Refrigerant and Halocarbon Recycling and Disposal

Applicability: Applies if the Permittee engages in the use of or recycling or disposal of certain refrigerants and Halon. The Permittee is subject to the requirements of 40 CFR 82 because the Permittee operates and maintains systems that contain refrigerant(s) and Halon.

Factual Basis: These conditions reference the applicable 40 CFR 82 requirements. The Permittee may not cause or allow violations of these prohibitions. No additional MR&R requirements are required to ensure compliance with these federal requirements.

Condition 26 Good Air Pollution Control Practice

Applicability: Applies to all sources except for sources or activities regulated under 40 CFR Part 60, 61, 63 and 82.

Factual Basis: Maintaining and operating equipment in good working order is fundamental to preventing unnecessary or excess emissions. Standard conditions for monitoring compliance with emission standards are based on the assumption that good maintenance is performed. Without appropriate maintenance, equipment can deteriorate more quickly, and periodic monitoring that is not continuous would be needed much more frequently to be sure that it is representative.

Records should be kept and available to the department. Records of deferred maintenance may be a reasonable trigger for requesting source testing.

For most existing equipment, the department does not specify that the Permittee must follow manufacturer's recommendations. If the manufacturer's recommendations are not suitable for Alaskan conditions, or do not relate to minimizing emissions, the Permittee can see that they are changed as a condition of purchase for existing equipment. The requirement for complying with manufacturer's recommendations or with a specific operation and maintenance (O & M) plan is included for control equipment because the efficient operation of control equipment directly relates to emissions, and the department does not anticipate that Alaskan conditions will require drastically different O & M procedures.

It is not the department's intent in specifying manufacturer's recommendations to include those that endorse only the manufacturer's line of replacement parts. The condition states that any suitable replacement parts or equipment can be used.

Condition 26.b requires the Permittee to keep maintenance records to show that proper maintenance procedures were followed, and to make the records available to the Department. The Department may use these records as a trigger for requesting source testing if the records show that maintenance has been deferred.

Condition 26.c requires that the Permittee keep copies of the facility's maintenance procedures for the facility operations. This condition takes into consideration the nature of the Permittee's maintenance program, which is procedure based with schedules undergoing frequent changes. Instead of requiring the Permittee to keep a copy of the maintenance

procedures on site, a copy of the current procedures schedule shall be submitted when requested by the department.

This condition does not apply to NSPS, NESHAPs and Part 82 sources.

Condition 27 Dilution

Applicability: This state regulation applies to the Permittee because the Permittee is subject to emission standards in 18 AAC 50.

Factual Basis: The condition prohibits the Permittee from diluting emissions as a means of compliance with any standard in 18 AAC 50.

Condition 28 Reasonable Precautions to Prevent Fugitive Dust

Applicability: Applies to the Permittee because the Permittee will engage in industrial activity at the facility.

Factual Basis: The condition restates the regulatory prohibition on fugitive dust. This prohibition calls for reasonable precautions to be taken to prevent particulate matter from being emitted into the ambient air while engaged in industrial activities.

Condition 29 Stack Injection

Applicability: Stack injection requirements apply to the facility because the facility contains a stack or source constructed or modified after November 1, 1982.

Factual Basis: The condition prohibits the Permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e. disposing of material by injecting it into a stack). No specific monitoring for this condition is practical. Compliance is ensured by inspections, because the source or stack would need to be modified to accommodate stack injection.

Condition 30 Open Burning

Applicability: The open burning state regulation in 18 AAC 50.065 applies to the Permittee if the Permittee conducts open burning and firefighter training at the facility.

Factual Basis: The condition requires the Permittee to comply with the regulatory requirements when conducting open burning and firefighter training at the facility.

Condition 31 Air Pollution Prohibited

Applicability: These state regulations apply because the Permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulations are 18 AAC 50.110 and 18 AAC 50.346. The department will use these standard conditions in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Condition 32 Technology-Based Emission Standard

Applicability: Technology Based Emission Standard requirements apply to the facility because the facility contains equipment subject to a technology-based emission standard, such as BACT, MACT, NSPS or other “technologically feasible” determinations..

Factual Basis: The Permittee is required to take reasonable steps to minimize emissions if certain activity causes exceedance of any technology-based emission standard in this permit. The conditions of this permit list applicable technology-based emission standards and require excess emission reporting for each standard in accordance with condition 46. Excess emission reporting under condition 46 requires information on the steps taken to minimize emissions, the report required under condition 46 is adequate monitoring for compliance with this condition.

Condition 33 Permit Renewal

Applicability: Applies if the Permittee intends to renew the permit.

Factual Basis: The Permittee is required to submit a complete application for permit renewal by the specific dates applicable to Pump Station 9 as listed in this condition. Monitoring, recordkeeping, and reporting for this condition consist of the application submittal. No additional requirements are necessary to ensure compliance with this condition.

Condition 34 and 35 Requested Source Tests

Applicability: Applies because this is a standard condition to be included in all permits.

Factual Basis: The Permittee is required to conduct source tests as requested by the Department. Monitoring consists of conducting the requested source test, and no recordkeeping or reporting requirements are necessary to ensure compliance with this condition.

Conditions 36 - 38 Test Plans, Notification, and Reports

Applicability: Applies when the Permittee is required to conduct a source test.

Factual Basis: Standard Condition 18 AAC 50.345(m), (n) & (o) is incorporated through these three conditions. Because this standard condition supplements specific monitoring requirements stated elsewhere in this permit, no monitoring, reporting, or recordkeeping is required. The source test itself is adequate to monitor compliance with this condition.

Conditions 39 - 41 Operating Conditions, Test Methods, and Excess Air

Applicability: Applies when the Permittee is required to conduct a source test.

Factual Basis: These conditions restate regulatory requirements for source testing. As such, they supplement the specific monitoring requirements stated elsewhere in this permit. The tests reports required by later conditions adequately monitor compliance with these conditions, therefore no specific monitoring, reporting, or recordkeeping is needed.

Condition 42 Certification

Applicability: This is a standard condition to be included in all permits. Applies because every permit requires the Permittee to submit reports.

Factual Basis: This condition requires the Permittee to certify all permit required reports submitted to the Department. To ease the certification burden on the Permittee, the condition allows the excess emission reports to be **certified** with the facility report, even though it must still be **submitted** more frequently than the facility operating report. This condition supplements the reporting requirements of this permit, therefore no additional MR&R is necessary to ensure compliance with this condition.

Condition 43 Submittals

Applicability: Applies because the Permittee is required to send reports to the Department.

Factual Basis: This condition requires the Permittee to send submittals to the address specified in this condition. Receipt of the submittal at the correct department office is sufficient monitoring for this condition. This condition supplements the reporting requirements of this permit, therefore no additional MR&R is necessary to ensure compliance with this condition.

Condition 44 Information Requests

Applicability: Applies to all Permittees, and incorporates a standard condition

Factual Basis: This condition incorporates a standard condition in regulation, which requires the Permittee to submit information requested by the Department. Receipt of the requested information is adequate monitoring.

Condition 45 Recordkeeping Requirements

Applicability: Applies because the Permittee is required by the permit to keep records.

Factual Basis: The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit. The records being kept provide adequate evidence of compliance with this requirement, therefore, no additional MR&R is required.

Condition 46 Excess Emission and Permit Deviation Reports

Applicability: Applies when the emissions or operations deviate from the requirements of the permit.

Factual Basis: This condition satisfies two state regulations related to excess emissions - the technology-based emission standard regulation and the excess emission regulation. Although there are some differences between the regulations, the condition satisfies the requirements of each regulation.

The condition does not mandate the use of the Department's reporting form, but it does specify that the information listed on the form must be included in the report.

The reports themselves and the other monitoring records required under this permit provide an adequate monitoring of whether the Permittee has complied with the condition.

Therefore, no additional MR&R is necessary to ensure compliance with this condition. Please note that there may be additional federally required excess emission reporting requirements.

Condition 47 NSPS and NESHAP Reports

Applicability: Applies to facilities subject to NSPS, NESHAPs, or MACT federal regulations under 40 CFR Parts 60, 61, or 63.

Factual Basis: The condition supplements the specific reporting requirements in 40 C.F.R. 60, 40 C.F.R. 61, and 40 C.F.R. 63. The permit does not need any MR&R. The reports themselves are adequate monitoring for compliance with this condition.

Condition 48 Facility Operating Reports

Applicability: Applies to all permits.

Factual Basis: The condition restates the requirements for reports listed in regulation. The condition supplements the specific reporting requirements elsewhere in the permit and does not need any MR&R. The reports themselves are adequate monitoring for compliance with this condition.

Condition 49 Annual Compliance Certification

Applicability: Applies to all Permittees.

Factual Basis: This condition specifies the periodic compliance certification requirements, and specifies a due date for the annual compliance certification. Because this requirement is a report, no MR&R is needed. The due date for this report has been extended from February 1 to March 31 as requested.

Conditions 50 - 56 Standard Conditions

Applicability: Applies because these are standard conditions to be included in all permits.

Factual Basis: These are standard conditions required for all operating permits.

Condition 57 Permit Shield

Applicability: Applies because the Permittee has requested a shield for the applicable requirements listed under this condition.

Factual Basis: TABLE 2 of the permit explains the permit shield requests and the department's applicability determination. This permit condition sets forth the requirements that the department determined were not applicable to the facility, based on the permit application, past operating permit, construction permits and inspection reports.

Conditions 58 - 66, (Section 13)- Visible Emissions and PM Monitoring Plan

Applicability: This regulation applies to operation of all fuel-burning equipment in Alaska. Source ID(s) 1 - 8 are fuel-burning equipment.

Factual Basis: These conditions have recently been adopted into regulation as a standard condition. MR&R requirements are listed in Section 13 of the permit.

Liquid Fired:

Monitoring – The visible emissions are to be observed by the Method-9 plan as detailed in Section 13. Corrective actions such as maintenance procedures and either more frequent or less frequent testing may be required depending on the results of the observations.

Recordkeeping - The Permittee is required to record the results of all visible emission observations and record any actions taken to reduce visible emissions.

Reporting - The Permittee is required to report: 1) emissions in excess of the federal and the state visible emissions standard, 2) and deviations from permit conditions. The Permittee is required to include copies of the results of all visible emission observations with the facility operating report.

No visible emissions monitoring or particulate monitoring is required for insignificant sources.